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Jas. G. Baillie, Jr.

June 18, 1931

Government
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Ninth Annual Report

OF THE

GAME AND FISHERIES DEPARTMENT

1915

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

Printed and Published by A. T. WILGRESS, Printer to the King's Most Excellent Majesty

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Printed by
WILLIAM BRIGGS
Corner Queen and John Streets
TORONTO

To His Honour SIR JOHN STRATHEARN HENDRIE, K.C.M.G., C.V.O., a Colonel in the Militia of Canada, etc., etc., etc.

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Ninth Annual Report of the Department of Game and Fisheries of this Province.

I have the honour to be,

Your Honour's most obedient servant,

F. G. MACDIARMID,
Minister of Public Works.

TORONTO, 29th March, 1916.



Ninth Annual Report

OF THE

Department of Game and Fisheries] of Ontario

To the Honourable Mr. F. G. MACDIARMID,

Minister of Public Works.

SIR,—I have the honour to submit the Ninth Annual Report of the Department of Game and Fisheries, which is for the fiscal year ending October 31st, 1915.

EXAMINATION OF INLAND WATERS.

Mr. J. B. Fielding's services were secured with a view to examining inland waters and to map out a scheme of fish propagation. He has gone into the matter thoroughly and the Department has gained much valuable information from his report. One of the most important steps taken in this direction was the construction of a hatchery at Normandale.

FISHERIES.

The Department of the Naval Service of the Federal Government, upon whom the administration of the laws and regulations are conferred, consulted with this Department with regard to amendments to the fishery regulations of the Province of Ontario, the result being the passing of new regulations, which, it is thought, will be a decided improvement upon those before existing. The wishes of this Department with regard to these new regulations were given every consideration by the officials at Ottawa, and the cordial manner in which their suggestions were received was much appreciated.

A change in the issuing of licenses for tug fishing in Lake Erie was inaugurated allowing tugs from any port on Lake Erie, in the Province of Ontario, to fish the entire lake under certain restrictions; formerly they were confined to a particular area, the result being that despite the most careful vigilance, violations would constantly take place. The gill net fishermen have expressed in no uncertain terms their gratification, and have promised that the conditions of their licenses will be faithfully observed, the sincerity of which the Department has every reason to believe.

The successful hatching of bass fry, and, for the first time this year, speckled trout fry, for restocking purposes, was most encouraging, and great praise is due to Mr. J. T. Edwards, Superintendent of the Mount Pleasant Hatchery, whose devotion and energy have made this a credit to the Province. The economy he has always practised, both in the construction and maintenance, has resulted in a minimum of expenditure.

Much to our surprise, the tourist traffic, instead of increasing, fell off to a considerable extent owing undoubtedly to the war. Many Americans were of the opinion that they would be required to obtain passports before entering Canada.

Mr. Henry Watson, who has for many years served the Department faithfully, was appointed a Warden, thereby extending his powers considerably and increasing his usefulness.

The overseers on the whole have performed their duties satisfactorily. Some of them, however, have enlisted, their duty to their Empire quite properly being their first consideration, their positions in the meantime being kept open for them.

The railway and navigation companies have rendered much assistance to the Department and their co-operation has made more effective enforcement of the Act.

GAME.

The amendments made to the Act at the last session of the Legislature have worked very well indeed, and the time has now arrived when further amendments should be made. Our inspectors, who travel about the Province a great deal, state that it seems almost the unanimous opinion of the trappers that they should be licensed, and I would respectfully suggest that provisions be made for doing so at the coming session of the Legislature, but in doing so I would suggest that at the present time farmers and farmers' sons be exempt when trapping upon their own lands.

I would also suggest (owing to the fact that beaver having increased to such an extent, in many cases causing serious damage to the private property and public highways) that provision be made for an open season for beaver and otter during the fall and winter of 1916-17, upon such terms and during such periods as may be prescribed by the Lieutenant-Governor-in-Council. If a small royalty on each beaver and otter skin taken was imposed, no doubt a very substantial addition would be made to the revenue of the Department, which would very materially help to provide more efficient enforcement of the Game and Fishery laws, more especially in the northern and north-western portions of the Province.

Reports concerning game in general continue favorable, but a Treaty between Great Britain and the United States for the better protection of both migratory game and non-game birds in the United States and Canada is now being considered. When completed no doubt some changes will have to be made in our laws in order to comply with the terms of the Treaty.

I must again tender my warmest thanks to the Superintendent of the Provincial Police, his Inspectors and Constables, who are always anxious and willing to assist the Department in enforcing the Game and Fishery Laws, especially in the northern portions of the Province, where officers of this Department are too few to patrol such a vast extent of territory.

I have the honour to be, Sir,

Your obedient servant,

A. SHERIFF,

Deputy Minister of Game and Fisheries.

TORONTO, March 29th, 1916.

A. SHERIFF, ESQ.,

Deputy Minister of Game and Fisheries.

SIR,—I have the honour to submit my report for 1915, which I trust will meet with your approval.

It is satisfactory to know that nearly every species of game in the Province has been equal to past seasons, and particularly in some species, notably quail, the close seasons and a mild winter having had the desired effect of largely increasing the number of these grand useful little game birds.

Ruffed grouse, better known as partridge, are reported to have been numerous in many localities; in others the unusual wet nesting season was not so favorable to an increase, even though they had not the large destructive forest fires of other years to contend with.

Ducks and Other Waterfowl: The mild weather prevailing enabling the ducks to stay out in the open waters, the shooting has not been as satisfactory as other years.

Moose and Deer: The Government and your Department should be congratulated on the amount of large game still to be found in the northern woods of the Province. That they are not decreasing, I assure you is most gratifying to me. I was not over-sanguine twenty years ago that we would succeed in preserving and keeping up the supply of big game. When we take into consideration the very large increase in the number of big game hunters and increased destructive power of rifles, it is a wonder to me that my most sanguine anticipations have been more than realized. No doubt this is in a large measure due to reducing the number from two to one that each hunter could legally kill. This has had the good result of a far larger proportion of bucks being killed, the hunters wanting a large deer instead of two small ones, as in past years.

Fur-bearing animals are reported to be as numerous as usual. There should be a restricted open season for beaver to prevent the usual claims and complaints for flooding caused by these clever little engineers.

Fish: Your being conversant with all pertaining to the fisheries of the Province, it would be presumption for me to make extended reference thereto. But I consider it my duty to refer briefly to the new special fishing regulations for this Province. I cannot bring myself to approve of the abolition of the close seasons in the great lakes, which seem to me to ignore the laws of Nature.

The Department during the past year had the misfortune to lose by death one of its most efficient and faithful officers, the late special officer Daniel Blea, at South Bay. He was fearless and most effective in the discharge of his duties, in which he was frequently opposed by those who should have rendered him valuable assistance.

Yours obedient servant,

E. TINSLEY.

A. SHERIFF, ESQ.,

Deputy Minister of Game and Fisheries.

SIR,—I beg to submit my annual report for 1915.

I understand that the commercial fishermen have had an average year with the exception of Lake Erie, which I understand is below the average.

The tourists visiting Ontario during 1915 were less in number than in 1914, although the angling was never better, caused no doubt by the frequent re-stocking of our waters from the Brantford Hatchery.

I am glad to inform you that enforcing the angling fee on American tourists on the St. Lawrence is proving an unqualified success. I would recommend that the present non-resident angling fee be increased to \$3.00 and \$6.00; also a fee of \$1.00 be charged on resident anglers who fish in Ontario waters twenty miles from their homes.

Ducks are reported as being plentiful, but I would recommend that not more than 200 ducks should be killed from any one point or hide. This I think would prevent the sale of ducks. Small game of all kinds are reported plentiful.

I would recommend that on all foxes killed between November 1st and March 1st a royalty of fifty cents per skin be collected.

Let me again call your attention to the benefits arising from a trapper's and rod license on residents of Ontario.

Owing to the fact that ling and other coarse fish are increasing in the Kawartha Lakes, I would recommend granting hoop net licenses in those lakes for the purpose of removing those voracious kinds of fish. The opening of these inland lakes for hoop net fishing would give employment to a large number of men, and there is no doubt but that the lakes would be greatly benefited. The inhabitants of the adjacent cities and towns would be able to consume the fish caught, and it would thereby decrease the present cost of living.

Your obedient servant,

ALF. HUNTER,
Inspector.

THUNDER BAY AND RAINY RIVER.

Warden Donald McDonald, of Fort William: I have the honour to submit you my report on Thunder Bay and Rainy River Districts, for the year ending October 31st, 1915.

Commercial Fishing: With the exception of that portion of Lake Superior lying between the Kaministiquia River and the International Boundary at Pigeon Point, fishermen report that the fishing was better this season than it had been for several years, and especially the herring catch in Thunder Bay.

Inland lake fishing is reported to be about the same as last year, except Rainy Lake, where a number of the fishermen were using four-inch mesh gill nets for pickerel during the seasons for 1913 and 1914. During the season of 1915, this practice was stopped, and it is only reasonable to believe that there will prove to be a falling off in the catch of pickerel for the year, but which should be normal for the coming season.

This being international water, I would recommend that the two governments adjust the regulations in order to place fishermen on both sides on an equal basis.

Angling: Sportsmen report good catches, and especially on the famous Nipigon River. Men who are authorities on this subject claim it to be the best speckled trout stream in the world. Sportsmen commend the Department on the good work done during the season in the taking of suckers and pike out of said waters.

Fur-Bearing Animals: On account of lack of demand and low prices offered for furs since the war commenced, very little trapping has been done, consequently there is a great increase in all fur-bearing animals, especially beaver, which are becoming so numerous that they are causing considerable trouble, in many places flooding cultivated lands. I would recommend an open season.

Wolves, especially the species known as the brush wolf, are on the increase, and very destructive on young deer, as well as on small game. I would strongly recommend that the present bounty of \$15.00 on timber wolves be abolished, and instead a bounty be paid on all properly cured pelts of wolves as follows: Grown wolf, \$10.00; cub wolf, \$3.00. This on the surrender of the pelt to the Department.

Game: Moose and deer are plentiful. Caribou are on the decrease along the railway lines.

Ducks are scarce.

Partridge are on the decrease at an alarming rate. I would recommend a close season for at least three years, and for further protection, would recommend a general gun license, according to season. This would greatly assist the officers of the Department in the protection of game.

Violations: The area of Thunder Bay and Rainy River Districts are so great that I was unable to cover all the territory. I, however, visited the most important parts possible, and regret to report that I found the Game and Fishery Laws abused in many places. Personally I secured thirty convictions, seized three gasoline boats, one rowboat, eleven gill nets, one seine net and six hook lines of about 2,500 hooks. Of the eleven gill nets seized, nine were of illegal size mesh, and were destroyed.

Warden J. H. Willmott, Beaumaris: I beg to submit my annual report in respect to the game and fish in that portion of the Province under my charge.

The angling at the commencement of the season was not so good as usual owing to weather conditions, but improved as the season advanced, and towards the end was in every way equal to any previous year.

There is no doubt that netting is carried on in a small degree in many of our inland lakes, principally by settlers for their own use, and as nets are only liable to confiscation when in actual use or on evidence of illegal use, it is a difficult matter to apprehend the culprits. I would therefore recommend that anyone owning a net should be charged a nominal fee for the possession of such net; that they be allowed the privilege of netting herring during the month of November, and at the close of this month to leave the nets in charge of overseers until the commencement of the following November, and that anyone found in possession of nets in the intervening time should be held liable to prosecution. Many of our inland lakes teem with herring, which would be a great help to many poor settlers' families if they could be caught, but netting is the only means of procuring them.

Deer, I am glad to say, are reported as holding their own as regards number, in fact they are increasing in many sections where they had been killed off, and where the remaining few have not been molested and have had a chance to increase. Too much care cannot be exercised in the disposal of licenses. I have heard it reported that in some cases members of hunting clubs have had the disposal of licenses and have only sold to members of their own party who have been successful in procuring their deer, the unsuccessful ones getting off free.

Beaver have been the source of more trouble than anything else in the game or fur line. These animals have increased to such an extent that in many places

they have become a perfect nuisance. Many farmers have been unable to cut their beaver hay, which they relied on to a great extent to help out the feed for their stock, owing to the flooding of their meadows caused by beaver dams. We have dynamited a number of these, but in many cases they have been rebuilt in a few days.

Many shooting accidents have occurred during the past year owing to the carelessness of handling firearms, especially to boys. I would strongly recommend a general gun license, and this only to be issued to parties above a certain age. This I am convinced would be a preventative to many accidents, would do away with the illegal shooting by the foreign labouring element, and would also debar boys from shooting everything they came across with their "22" rifles, and would also materially help in the preservation of insectivorous bird life.

Warden William Burt, Simcoe:—

I have the honour to submit my report for the season of 1915.

Commercial Fish: The fishermen report that the gill net fishing has not been good. The seines have been successful. The carp ponds continue to be successful and carp are increasing in Long Point Bay; the price has been much higher than in most previous years. A general report of the commercial fish in my district indicates that the catch is not as good on the average as last year.

Speckled Trout: The catch of this species of fish has been greater than in former years, owing to the planting of fry supplied by the Department.

Brown Trout: The planting of this fish in the brooks in my district has been most successful. These fish appear to be fitted for the streams where the water becomes too warm for brook trout.

Bass: The fishing in Long Point Bay has been as good as in former years, and the fish have been much larger. The hatchery at Mount Pleasant continues to be an unqualified success, and the supply of fry was much greater than last year.

Quail and Ruffed Grouse: Quail are almost extinct. Ruffed grouse are much more plentiful than last year and show a very great increase over previous years.

Mongolian Pheasants: There are a few of these birds in Norfolk county, but the experiment is on such a small scale that no great results have been obtained. The birds seem to stand the winter well. They are very plentiful in the Niagara district.

Woodcock: The number of woodcock remains about the same as last year.

Wild Geese: Conditions regarding these birds are about the same as formerly reported. There are practically none in the district.

Wild Ducks: The Long Point district shows no sign of a decrease. Black ducks, mallard and pintail being quite numerous. The canvasback, redhead and blue bills appear in about the same numbers as in former years.

Black Squirrels: There is a large increase in the number of squirrels, particularly in Norfolk county and the other counties where they are being protected.

Fur-bearing Animals: Muskrats continue to increase. The trappers report good catches last spring. Mink seem to be showing some increase.

There have been a number of infringements of the game laws, but on the whole they have been fairly well observed. The Deputy Warders and Overseers have performed their duties well.

*Warden V. Chauvin, Windsor:—*I have the honour to submit my report for the season of 1915. I have visited all the fisheries in my district and the majority have reported good fishing.

The catch of whitefish and herring was very fair last fall, in view of the storms in the lakes.

All the whitefish and herring spawn that the Hatchery could handle was obtained, but I think there should be more hatcheries built, especially on Lake Erie.

The whitefish have started to show good this fall in Lake Erie and there are a few in the Detroit River and Lake St. Clair.

There has been a good catch of sturgeon, perch and white bass in Lake St. Clair and part of Lake Erie, but there should be a regulation in regard to the size of sturgeon, perch, white bass and blue pickerel. A great many of these fishes are taken too small for the market.

Black bass are reported plentiful around St. Clair Flats, Mitchell Bay and Pelee Island, and the anglers claim to be making good catches.

German carp are increasing all along different lakes and rivers.

Quail are reported by the farmers and sportsmen more plentiful than in years past.

Hungarian partridge which were distributed by the Department a couple of years ago are doing fine in the Counties of Essex and Kent. The farmers have seen a great many young birds every season. Other partridges are about the same, not increasing.

Woodcock were very plentiful early in the season, but very few of them were shot this fall.

English pheasants are reported doing well along Pelee marsh.

Snipe has only just started to make a show this fall.

Black and grey duck Mallard were plentiful early in the season and a lot of them bred in the marshes of Lake Erie, Detroit River and Lake St. Clair. All the species of ducks—canvasback, blue bill, red head—have not showed very much this fall, but they were plentiful in the end of 1914, especially in Lake St. Clair, Rondeau and Lake Erie.

Wild geese are about the same as other years.

Black and grey squirrels in Essex and Kent are scarce and there should be a close season in these two counties for these squirrels.

Muskrats are beginning to show up well in their building houses in the marshes. Last fall they were plentiful and the catch was very fair, but the season to catch rats should be February 15th to April 10th the same year.

All the overseers and Deputy Game Wardens in my district have performed their duties well and always readily assist me in enforcing the law.

Warden G. M. Parks, North Bay:—

I beg to submit my annual report for the year 1915.

I have travelled my district extensively during the past year, and am pleased to say that I find a general improvement in both game and fisheries, with the exception of partridge, which are very scarce. I would like to recommend a close season for 1916, the bad fires during the early part of the last two years having destroyed the eggs and young birds.

Wild ducks are reported plentiful throughout the district, and wild geese, though scarce in this locality, abound in the north. Snipe and plover are also plentiful.

Moose, many of which have already been brought in by the hunters, and deer, appear to be increasing. A number of caribou have been reported along the Trans-continental Railway.

Beaver are rapidly increasing. In many places they are causing damage to roads and private lands. Would recommend an open season in the near future, and that trappers be charged a license of at least one dollar for each skin taken. Would suggest that license be issued with shipping coupons attached. One of these could be attached to each skin when presented for shipment. Otter, though enjoying the same protection as beaver, have increased little, if any.

Mink and muskrat, and all other fur-bearing animals, show no signs of decrease. Owing to the low price of furs last season many trappers did not go out. Wolves appear to be increasing in number.

Regarding the fishing, I find a general improvement all over the district. Fishermen operating in the small inland lakes for home markets report good catches all through the season.

I would like to recommend a general gun license as a measure that would help to suppress illegal hunting, also a trapper's license for residents.

Warden J. T. Robinson, Sault Ste. Marie:—

I beg to submit my annual report for the year 1915.

Speckled trout are plentiful on the north shore of Lake Superior and the inland lakes and streams in that part of West Algoma up to Otter Head and Pigeon River. East of the Soo speckled trout are not so plentiful.

Rainbow trout will get a good chance to increase in St. Mary's Rapids as no fishing has been allowed in the Rapids since the war started. I think when the war is over these fish will be plentiful.

Bass of all kinds abound east of Sault Ste. Marie along the north shore of Lake Huron and in the inland lakes of that district. There are also some of these fish along the Algoma Central Railway, also on the north shore of Lake Superior, but not in such numbers as in the East.

Pickarel are increasing in Lake Superior and seem to be holding their own in Lake Huron.

Perch also are increasing in all the waters of this district. Pike are very plentiful in all the bays of Lake Superior and Lake Huron.

Sturgeon are comparatively scarce. There are a few to be found in Batchawana Bay, also some in Goulais Bay in Lake Superior, also Lake Huron and Georgian Bay. As these fish are becoming scarce I would recommend that there should be a close season put on them for three years.

Whitefish and lake trout are holding their own in Lake Superior. They are not so plentiful in Lake Huron and Georgian Bay.

Herring are plentiful in all the waters of Lake Superior and Lake Huron. There are no eels, catfish nor carp.

Reports from fishermen from all over my district would indicate a good season, although the weather was very stormy during most of the fishing season. I think when all the returns are in they will show a larger catch than in 1914.

Partridges are plentiful in this district, but plover, snipe and wild geese are scarce.

Wild ducks of all kinds are fairly plentiful.

Mink hold their own, while muskrats are plentiful.

Martin and fisher are scarce. These animals should be protected, as their fur is valuable.

Otter is very scarce in this district, but beaver are very plentiful and are doing a great deal of damage to timber and roads, also to farm property.

Moose are very plentiful in my district. Although there are quite a number taken each hunting season they are increasing each year.

Elk and caribou, there are none in this district south of the main line of the C. P. R.

Red deer are increasing in numbers each year.

Wolves are not as plentiful as they were in 1913 and 1914.

Owing to getting one of my eyes hurt in a trip I made through the Goulais Bay District I have not been able to cover as much of my district as I would like to have done, but I am satisfied that the law has been well observed. Considering the war and the hard times we have had there have been few violations.

The patrol boats in my district have given good service during the season in looking after the fisheries. The Overseers also have been very active in enforcing the law.

Warden C. N. Sterling, Kenora:—

I beg to submit my report for the year 1915 as follows:—

Commercial Fishing: Commercial fishing in the Lake of the Woods has been fully twenty per cent. better than that of last year. This is largely due to high water. Where pound net fishing has been carried on, the catch has been much larger than usual. On the inland lakes, where winter fishing takes place, operations were not carried on during the whole of the season, and consequently the catch was not up to the standard of previous years.

Black Bass: On Long Lake black bass fishing has been fully up to the standard of last year, and some good catches have been made in the Lake of the Woods in proximity to the outlet of this lake.

The fingerlings, which your Department sent up this year, were placed, with very little loss, in Fox Lake and in a few years should give very good results.

Moose and Caribou: In this district moose seem to be increasing in numbers and caribou appear to be going north into the District of Patricia.

Red Deer: Red deer are not quite as plentiful as last year, and unless something is done towards the extermination of the brush wolves I am afraid that they will continue to decrease.

These animals are getting very numerous. They have been known to come into the barnyards of the settlers and kill the fowl. This, I think, is due to the scarcity of rabbits, which was their principal food supply in previous years.

Beaver and Otter: Beaver are increasing very rapidly and are giving some trouble to the railways and settlers by flooding their lands.

Otter seems to be on a par with previous years; but it is hard to estimate whether they are increasing or not.

Mink and Muskrat: According to the best information which I can get, mink are increasing, and this is probably due to the fact that the price of this fur is low and the trappers are few.

Muskrat are fully as numerous as other years, and I have had much less trouble this year with the Indians, who had a habit of breaking open the houses.

Partridge: Partridge are almost a complete failure. This is largely due to the brush wolf and in a measure to the wet, backward spring. There is little doubt but the brush wolf is the main cause.

Ducks and Geese: Ducks and geese are not plentiful, but are about the same as last year.

Law Observance: With respect to the observance of the Game Laws, may say that with the assistance of the Overseers, Deputies, and the launch *Wenonah*, there has been a decided improvement.

I would, however, recommend that a gun license and also a trapper's license be issued by your Department, and that all parties who hunt or trap be required to take one out. In this way the officers of the law would be in a better position to keep check on offenders and evaders.

I have put in a good deal of time along the boundary line of Minnesota and the Province of Manitoba on account of the reports of poachers who were coming across. I was able to seize and destroy a number of nets, and on one occasion imposed a fine which had a good effect.

A. SHERIFF, Esq.,

Deputy Minister Game and Fisheries.

SIR,—I beg to submit annual report for the year 1915.

The licensed fishermen in this vicinity had a very poor year, their catch being smaller than ever before. The small amount of restocking that is carried on does not show any results whatever. It was expected that the new trunk sewer would improve things. It no doubt has stopped the pollution and purified the water, but the lake fishing does not get any better, neither has it improved the rod fishing any.

Illegal shipments, fish, game and furs, coming to and passing through Toronto by express, get less and less every year. The express companies willingly give every assistance possible to help stop the illegal traffic.

Returning hunters report the deer in most places as plentiful as ever, but all report the partridge as very scarce, in some parts practically extinct, and unless given two years of a close season right away it will require years of protection to bring them back.

The small mouth black bass hatchery at Mt. Pleasant had a very successful year and good results should soon be in evidence from the very large number of both fry and fingerling that have been planted in the bass waters of the Province.

Yours respectfully,

HENRY WATSON, *Warden.*

GAME AND FISHERIES OVERSEERS.

ADDINGTON COUNTY.

From Overseer W. J. Donaldson, of Donaldson, for Townships of Palmerston, Clarendon, Barrie, Miller, North Canonto and South Canonto.

Quite a number of tourists visited my district, who all report good angling.

Deer are, in my opinion, about holding their own, but wolves are making a great slaughter of them. Many carcasses of deer which had been destroyed by wolves have been found in marshes by parties cutting wild hay. The wolves also destroyed a number of sheep and calves.

Partridge are very scarce, which in my opinion is due to the cold wet spring destroying the broods.

Ducks are scarce, as there is very little feed for them in the waters of my district.

Fur-bearing animals of all kinds are scarce.

A great number of deer hunters visit this district and it is very difficult to watch them. I am of the opinion that many of them hunt without a license. I beg leave to submit that it would be easier enforcing the law if some one person in each district handled the licenses for that district so that the overseers could have access to the records. He would then know who had a license and who had not.

I am of the opinion that it would improve matters if each man carrying a rifle during the hunting season wore a badge on the lapel of his coat or some other conspicuous place. This badge might constitute a license. I am of the opinion that something of this kind should be done to put a stop to illegal hunting.

From Overseer John E. Irish, of Vennachar, for the Townships of Anglesea, Effingham, Ashley, Denbigh and Abinger.

Deer are quite plentiful, also partridge and ducks.

Wolves also are numerous and have destroyed several sheep.

Otter are becoming more plentiful, and if they have protection for a short time they will be quite numerous.

From Overseer H. R. Purcell, of Colebrook, for Townships of Camden and Sheffield.

Fishing was good this summer.

Deer are fairly plentiful.

The catch of muskrats last spring was good, but few mink were caught.

Ducks were plentiful this fall.

I would recommend a close season for partridge for three years, and that any party carrying a gun off his own land should pay one dollar. All trappers should pay a small license fee.

From Overseer William Young, of Cloyne, for Townships of Kaladar and Barrie.

The fishing was good in all the lakes in my territory this season, especially in the lakes that have been stocked with bass. There were very few non-resident tourists, but many resident tourists, and all report good catches of bass and grey trout. Pike in Long Lake are becoming numerous.

Deer are as plentiful as last season.

Partridge are rarely seen.

Muskrats and mink are scarce.

Beaver becoming plentiful; one can see quite a lot of fresh work on some little lakes.

I would recommend that open season for partridge be from Nov. 1st to 15th, and for deer from Nov. 15th to 30th, for as a rule the weather from Nov. 1st to 15th is rather warm to save venison, and furthermore, there are quite a lot of deer wounded and get away and die, whereas if the season was changed there is generally snow about the 15th Nov., and any wounded deer could be tracked and found.

Wolves are plentiful in the northern part of my territory.

ALGOMA DISTRICT.

From Overseer J. R. Bradbury, of Blind River, for the District of Algoma.

There was considerable falling off in the pickerel catch, especially in connection with winter fishing. In fact, the winter catch was almost nil in the eastern part of this district except in the small inland lakes for which some small licenses were granted for gill nets. In these some fine pickerel were caught and the privilege was a source of profit and assistance to the settlers. The catch of whitefish was fair though perhaps not quite up to the average, still, as these fish are much in demand, especially the Jumbo size, four to five pounds and upwards, for the New York market shipped in the round, they bring fancy prices. The trout catch was normal near here, but extra good, I understand, in the deep water fished with tugs.

Very few pike are caught in the channel waters. The smaller fish, perch and herrings, do not show much change from 1914 and very little attention is given to catching them.

The catch of mullets has dropped off forty per cent.

The American fish buyers speak very highly of the class of fish shipped from this district and the fine condition in which they reach the markets of New York, Chicago and Detroit.

Bass seem quite numerous though there has been very little angling, and there has been practically no interest shown by the very limited number of tourists.

Red deer appear to be plentiful in some localities, but the wolves are becoming so numerous and bold that they are in a fair way to exterminate the deer in this district and are slaughtering them so fast that the deer must either migrate to some other part or become exterminated by the wolves. I very strongly recommend that the bounty on wolves be increased to \$20 to further encourage their destruction.

Moose are numerous in the far-back townships and some splendid specimens are seen from time to time. The fact that such large animals are very difficult to bring out of the woods hinders many hunters from shooting them.

Mink and muskrats appear scarce and not much attention has been given to trapping on account of the low prices for furs.

Partridge are very scarce as a general thing though some small bags are secured in some localities. I have travelled for several days in likely places and have not seen a bird all day. The wet season and the unusual number of owls have had something to do with killing off the young birds.

I wish to urge on the Department the advisability of changing the hunting season for deer and moose to read November 10th to November 30th, particularly on account of the fact that a large percentage of the meat killed during the

first ten days—November 1st to 10th—becomes spoiled because of the mild weather, the season having changed very much during the last few years.

From Overseer Herbert Edwards, of Nairn Centre, for the Townships of Merritt, Nairn, Lorne, Baldwin, Foster and Goshen. Carlyle Hu

Black bass and pickerel are plentiful in the lakes around here.

Last hunting season there were lots of deer, 136 being shipped out of here, and there seems to be lots of them this season.

I think the hunting season for deer should be put 15 days later, as it was warm weather last year, and it is warm again this year; under such conditions I am afraid meat will not keep.

There are a few moose but not very many.

Partridge are very scarce.

Muskrats and mink are plentiful.

Beaver are very numerous, and are increasing very fast; most of the creeks around are dammed up by them.

From Overseer Charles Fitzsimon, of Sault Ste. Marie, for the Province of Ontario.

Moose: From all accounts, moose are fairly plentiful. Quite a number have been seen this summer north of the Montreal River, where they have been very scarce in previous years. Further north, in the region between the Canadian Northern and National Transcontinental Railways, moose are to be found in considerable numbers. South of Espanola, on the Algoma Eastern Railway, there are very good moose hunting grounds. Taking a radius of say fifty miles from the Soo, while there are moose enough to furnish sport for all who care to go after them, conditions last year, where there were two cows to every bull—often—and very young bulls, there will be fewer heads this season than last.

Caribou: Very few caribou. A few used to be found in the Bruce country south of Michipicoten Mission, but the Indians have probably cleaned them out. Some small bands cross the Algoma Central Railway between Franz and Oba during the early winter, but caribou are not in numbers sufficient to provide material for a hunt. North of Hearst they may be hunted with good chances of success.

Red deer: Fairly plentiful. Are finding their way further north. Quite numerous in the near vicinity of the Soo.

Bear: Have been numerous.

Ruffed Grouse: Cold and wet season generally accounts for small broods and few birds this fall. Birds were fairly plentiful last season, but very scarce and very wild this season; mostly old birds.

Spruce Partridge: Very few. This species seems to be fast disappearing.

Duck: Some fair bags have been made in the Echo Bay waters this fall. There are no large flights; a few scattered flocks drifting in to these waters to rest and feed, on their long southern flight. The deep channels and bays of the Grand Manitoulin Channel offer fine feeding and resting grounds for wild ducks, and much larger flights and better opportunities for sport are to be found there.

Some wild rice was planted in one of the larger lakes north of the Soo last summer, but I have not as yet a report on the success of the experiment.

Hare: Quite plentiful. Very numerous around Franz and Oba.

Beaver: Increasing very rapidly. Few creeks in this North Country that do not contain their workings. Heavy continuous rains during the last two months have caused several heavy floods here, which have destroyed railway embankments and bridges, road bridges, washed out culverts, dams and river improvements, and caused thousands of dollars of expense. So much brush has been noted in the flood debris that there is little doubt the beaver contributed greatly to the cause, innumerable beaver dams holding back large areas of water, and failing, the great volume of water carried everything before it. It would seem that some regulation providing for the judicious taking of some beaver, should now be considered.

Marten, Fisher, Mink: Few. My opinion is these animals should be given at least a couple of years' protection.

Otter: Few. Are not increasing even under protection. It is to be admitted that otter are being killed illegally, and the pelts disposed of "under our noses," with small chances of discovery.

Speckled Trout: Owing to very indifferent weather, intermittent heavy rains and high water throughout the season, this fine game has not given the sport afforded in former years. Some fair catches have been made in some of the inland lakes and streams, but generally the angler met with disappointment. Weather conditions, however, are not the only causes for his lack of sport. That a number of the lakes and streams in the vicinity of the Soo have become seriously depleted, is very apparent to the observing fishermen, whose catches have been shrinking rapidly of late years.

Black Bass: There are but a few lakes in this vicinity which contain bass. Some fine fish have been taken in the lakes adjacent to the Canadian Pacific Railway Soo Line, some few miles east of the Soo. The lakes and channels in the vicinity of Little Current are maintaining their good reputation as splendid bass fishing grounds.

A number of lakes north of the Soo could be planted with black bass with surety of success.

Lake Trout: The greater number of the inland lakes in this district contain this splendid fish in great number and size. I have seen gray trout taken out of Trout Lake, Mile 57, Algoma Central Railway, of over a yard in length, and weighing some twenty-eight pounds dressed. These fish do not take the hook readily. They come out of deep water onto the shoals, sometimes as early as September, for the purpose of spawning, when they are easily taken by shooting, spearing, gaffing or netting, all of which means are of course illegal. The law as I interpret it, gives this species protection under the name of "Salmon-Trout" during the entire month of November, which period, much too short in the case of Lake Superior and Lake Huron fisheries to make certain that the processes of reproduction are safely cared for, is, in the case of the smaller inland lakes, about two months too late for any protection of this nature. A close season similar to the speckled trout is a necessity for the gray or lake trout in the inland lakes; and the Great Lakes gray trout should have protection from September 15th to November 30th, at least, in my humble opinion, if this fine but fast decreasing food fish is to have at the least a fighting chance for existence.

Several cases have been reported of netting in inland lakes. These have been investigated and a seizure of nets made.

Commercial Fishing: By all accounts this past season generally has been more successful than for several years, in whitefish especially. Lifts fell away during

the summer, but ran heavy towards close of season. Trout is not holding its own. Comparison of the catch per annum of lake trout is eloquent evidence that attention must be given the conservation of this species. The present inadequate close season, its frequent shortening by special legislation, the throwing open at times of propagating grounds specially reserved and heavy over-fishing are the causes of the decline of this delicious food fish.

Illegal fishing has been reported in the Lake Superior waters in proximity to the Soo and in the channels and smaller lakes east of this point. American poachers have for years exploited these waters. A fast gasoline cruiser, capable of standing a bit of rough sea, with a live man in charge, is an absolute necessity for the purpose of properly patrolling these waters.

Coarse Fish: Suckers are multiplying with rapidity and infesting the spawning grounds in Lake Superior, doing incalculable harm to the fisheries. A market for all such coarse fish is open in the larger cities of the Eastern States.

Rainbow Trout: Some splendid specimens of this wonderful game fish have been taken in the Ste. Marie Rapids at the Soo, this season. So far as I know the record rainbow taken with fly this season was a beautiful specimen, weighing 12 lbs. 14 oz. Mr. T. B. Harris, an officer of the Department and a keen angler, was the successful fisherman. Mr. Harry Knapp, son of Mr. Con Knapp, of the Algoma Hotel, Sault Ste. Marie, Ont., landed a rainbow weighing 12 lbs. 6 oz. Many rainbow have been taken running from 9 lbs. up. This species is finding its way up the east shore of Lake Superior and will doubtless within a few years be found in the rapid waters of the various streams flowing into the big lake. Recommendations have been made from time to time to have this most acceptable addition to our game fishes protected by law. Especially is this now required, when the rainbow trout is to be found on the commercial fishing grounds of Lake Superior. As the law stands, a close season from September 30th to June 30th should amply protect the rainbow, which is, by the way, not native to Ontario waters but which was introduced to Ste. Marie Rapids by Superintendent Harry Marks of the Michigan State Fish Hatchery, some fifteen years ago, and which has thriven and increased beyond all expectations. This species spawns in the spring.

Wolves: Still in such numbers as to destroy far more deer than the hunters kill in the season. The present bounty is so small and so much time is lost in securing it, that there is no inducement for hunters to go after wolves.

Observance of Law: During the summer a party of Finns located in the vicinity of Trout Lake, living on the game and stealing from caches and warehouses of a lumber company. Made several trips to the locality, and located camp which had recently been hurriedly vacated by the Finns. Party broke up and scattered. In the search for this camp, found beaver pelt, nets, night lines and some venison in a jobber's camp. Later located owner in the Soo, who is to appear to answer charges this month.

With the fast increasing population caused by the opening up of this new country north of the Soo, the necessity arises for more assistance in enforcing the Game and Fishery Laws. The district is of such great dimensions and the means of patrolling it so meagre, while the opportunities of the illegal hunter and trapper are so numerous, that to cover the territory at all, more men and men better fitted for the work are required.

ALGOMA DISTRICT.

From Overseer P. W. Kent, of Kentvale, for the whole of St. Joseph's Island.

Trout in this district are about the same as last season, but lake fishing with net has been a little better. Bass are very scarce. A few more tourists than usual came back this season.

Game of small sorts such as rabbits, partridge, etc., are scarce. Owing to a disease which took rabbits during the winter they were found dead everywhere, and the season being wet the partridge eggs did not hatch properly.

Beaver are doing damage everywhere, there being so many of them they now are to be found on nearly every little stream on the island.

Bears remain about the same, also muskrats, mink and weasels.

A few lynx and fisher have been seen. Foxes are very plentiful.

Deer and moose are plentiful but we would be better without an extended season this year.

From Overseer James Shappee, of Sault Ste. Marie, for the electoral District of Sault Ste. Marie.

The fishermen did fairly well and I have heard no complaints from them though a number lost their nets during the month of November.

The rabbits were plentiful, as also were wild ducks, especially on the north shore of Lake Superior.

Partridge were also plentiful on the same shore, but were very scarce on St. Joes Island.

Deer were fairly thick, but there were not so many as last year, the wolves seemingly have killed a number of them. I saw five carcasses in a bunch partly eaten by wolves. I would recommend the bounty on wolves be raised to \$25 as they are certainly destructive animals on deer. The trappers do not bother much with them now, but if the bounty were raised they would trap more of them.

Moose are fairly thick. In regard to moose I would recommend that cows be killed same as bulls as at present all the bulls are getting killed off and in a few years moose will be very scarce. I personally saw this spring nine cows in a bunch and no bull.

Speckled trout were quite plentiful and a number of tourists who were up the lake got good catches.

BRANT COUNTY.

From Overseer W. W. Jackson, of St. George, for South Dumfries, lying south of the Grand River.

Game of all kinds such as squirrels (black and grey) and partridge and cotton-tail rabbits show a large increase over other years. I do not remember ever seeing so many black and grey squirrels.

I would like to see a license put on all guns and a limit on squirrels, and also a trapper's license.

From Overseer Henry Johnson, of Brantford, for that part of Grand River lying between the southerly boundary of Town of Galt and the boundary line between Tuscarora and Onondaga Townships in County Brant and the Townships of Seneca and Oneida in Haldimand County.

Owing to continued wet weather throughout the early part of the summer, angling has not been very good, but during the month of October fishing has been fairly good.

Sturgeon are on the increase in the Grand River.

Black and grey squirrels are on the increase.

Rabbits are about the same.

Duck and woodcock are about the same as last year.

Muskrats, no doubt owing to the low price of furs, are increasing rapidly. Mink are about the same as in my last report.

Coons are on the increase. I would like to call your attention to the fact that a considerable amount of coons are being destroyed during the summer when these furs are of no value and would recommend a close season for them.

I would recommend both a gun license and a trapping license.

From Overseer Jacob F. Kern, of Burford, for the Townships of Burford, Oakland and Brantford, west of Grand River, but exclusive of said river.

The fishing for the year has been very light. I have never seen so few people enjoying the sport.

Game seems plentiful, this may be especially noted in black squirrel.

Partridge are also increasing in number, and as for rabbits they are becoming a scourge.

BRUCE COUNTY.

From Overseer D. Kehoe, of Millarton, for the portion of County Bruce lying south of Indian Reserve and Township of Amabel.

The fishermen had a fair catch this year.

Game is very scarce in my division.

From Overseer R. J. Stead, of Wiarton, for Georgian Bay, east and south of Tobermory Harbour, but exclusive of the said harbour, and extending south to the town.

Deer are quite scarce still in this county. Although they have been protected for some years I think they should be protected for three years more as one year hunting would clear them all out.

Trout and whitefish have been more plentiful than last year. They arrived on the spawning beds about ten days earlier than last year. The reason was that the water of Georgian Bay was colder earlier than in 1914.

Partridge are not very plentiful. They have decreased since last year.

Hares are less plentiful having been attacked by some disease and are found lying dead in the bush.

Cotton-tail rabbits are very scarce and seldom seen.

Black bass are about the same as usual, and it is only a good fisherman that can get more than the law allows.

Pickrel are becoming a scarce fish in these waters.

Black squirrels are becoming more plentiful, but are scarce yet.

From Overseer John Trelford, of Southampton, for that portion of the County of Bruce fronting on Lake Huron, and lying between the Town of Southampton and Tobermory Harbour, both inclusive.

The fishing was very good up till September 15th, but from then on it has been very light up till the 1st of November.

In regard to the angling fishing it has not been quite as good as other years. As far as the game is concerned the rabbits seem to be plentiful this year, also ducks, but partridge are rather scarce.

The fur-bearing animals in the district are very good, that is mink, muskrat and skunks. An odd fox is caught occasionally, although they are not plentiful. There are very few black squirrels, but the red are plentiful.

From Overseer J. M. White, of Walkerton, for the Townships of Brant and Greenock.

The Saugeen River which runs through the Township of Brant for a distance of about 15 miles was stocked with black bass two years ago and this fish appears to be doing well. There is also brook trout and rainbow trout in this river. There are also many small lakes in which there is trout and black bass, besides many small spring creeks that have brook trout in them.

Wood hare or cotton-tail rabbits are very plentiful and appear to be increasing very fast.

Partridge are more plentiful than they were three or four years ago.

There are some small black ducks on the river but not plentiful and a few snipe and plover.

Mink and muskrat are plentiful, while otter and marten are holding their own.

CARLETON COUNTY.

From Overseer W. J. Findley, of Richmond, for the Township of Goulburn, westerly part of Nepean Township, and that part of the Township of Marlborough adjacent to the Township of Goulburn.

There was good fishing this year. Pike and pickerel and a big run of red-fin suckers in the spring.

Partridges were plentiful but there were not many ducks.

We have a good many deer in this locality and they seem to be increasing owing to the game law being observed.

From Overseer A. Greene of Kinburn, for the Townships of Huntley and Fitzroy.

Fishing has been very good, all kinds of coarse fish being plentiful.

Deer seem to be numerous and many hunters are taking out licenses.

Ducks are scarce, but partridge are plentiful.

From Overseer E. T. Loveday, of Ottawa, for the Townships of Nepean, Gloucester, North Gower and Osgoode.

Owing to scarcity of work last winter a number of poor men took out dip net licenses to fish in Dow's Lake and the Rideau River, the \$1.00 fees being paid by "Good Samaritans." By means of these nets tons of suckers and other coarse fish were taken from the above mentioned waters, which, I believe, will do good.

Muskrats were and are very plentiful. Last spring quite a number were trapped within the City limits.

Reports state that partridge are scarce, while deer are plentiful everywhere. Ducks about as usual.

Bass fishing was very good at times, although the fish ran slightly less in weight. The best I got was one measuring 18½ inches and weighing 4½ lbs.

Pickereel dore were fairly numerous, but maskinonge scarce. Lots of sturgeon.

From Overseer William Major, of Woodlawn, for the Townships of March and Torbolton.

Fishing was very poor this season. Bass and pickereel were scarce, though pike and bullheads were plentiful.

Ducks came in large numbers but geese and partridge were scarce.

Deer are few around here.

Beaver are still on the creek.

Musk rats are not as plentiful as usual and other fur-bearing animals are also scarce.

DUFFERIN COUNTY.

From Overseer George Moffatt, of Glencross, for the Townships of Mulmur, Mono and East Garafraxa.

Musk rat are not as plentiful as last year, but fox and mink are just about the same as in former years.

Black and red squirrels are quite plentiful again.

Trout were more plentiful than last year, the streams being higher on account of so much rain.

From Overseer John Small, of Grand Valley, for the Townships of Melancthon, Amaranth and East Luther.

Deer are getting more plentiful on account of close season in Dufferin County.

Ducks are very plentiful this season.

Foxes and rabbits are increasing.

Mink are scarce, but muskrats are plentiful.

Fishing was not so good as last season.

DUNDAS COUNTY.

From Overseer N. W. Davy, of Morrisburg, for the County of Dundas.

Game as known in this county is chiefly restricted to partridge, hare and ducks.

Partridge have this year been possibly a little more plentiful than usual.

Hare are quite numerous and not much hunted in most sections.

Ducks, during the usual hunting season, are not much inclined to stop here, i.e. the better class of ducks—redheads, bluebills, canvas backs, etc. During the winter months this section together with the rapids section of the St. Lawrence affords feeding ground for whistlers and mergansers.

In the spring before the lakes open large numbers of bluebills, etc., use this section for feeding grounds.

Black ducks during the past few seasons have in increasing numbers been nesting in this section and with careful watching this should become a good hatching ground. They leave too early in the fall to provide sport for the huntsman.

A few pheasants have been seen and these have come from New York State where eggs have been given to the farmers who have had them hatched and then liberated the birds. My opinion is that throughout this district a close season for five or ten years should be enforced thus giving these magnificent game birds a chance to propagate.

Regarding the fishing pickerel have been more numerous the past season than for several years while bass have been a good average for here.

If greater co-operation can be secured in protecting the bass in their spawning grounds on the opposite side of the river we should, in a few years, have far better bass fishing than has existed.

Other kinds of fish have been about as usual as mentioned last year. Eels and suckers work havoc with the game fish spawn in the creeks during the spring months. The dog fish has made its entrance to these waters though as yet in small numbers and it is to be hoped will not become plentiful.

Most of the commoner fish exist to some extent in the waters of the St. Lawrence in these parts.

DURHAM COUNTY.

From Overseer Robert Elliott, of Port Hope, for the Townships of Hope and Cavan.

The catch of whitefish was greatly in excess of last season. They are increasing every year. Salmon trout were about the same as last year.

Angling in the harbour has not been as good as last year owing to so much dredging and blasting, perch, eel, bullheads, carp and suckers being the fish mostly caught.

In regard to brook trout I would recommend the close season from September 1st as the female trout begin to ascend the streams to spawn and are easy to catch. There are a great number caught between the first and fifteenth of September.

I would also recommend that Sunday fishing for brook trout be prohibited as a number use automobiles to go Sunday fishing. I regret this very much as the creeks will soon be void of trout if it is allowed to continue.

Partridge, black squirrel, wood hare and cotton tail rabbits are quite numerous.

Ducks are not very plentiful.

Muskrat are very plentiful, but mink are scarce.

Weasel and skunk are quite plentiful.

I would recommend a gun license, say one dollar, as there are so many boys running about with guns shooting everything in sight, overseers could then protect the game much better.

From Overseer S. G. Pickell, of Bowmanville, for County of Durham.

Ducks are as plentiful as last year.

Hares and partridges, despite the wet season, are increasing. The small fur bearing animals are holding their own.

Fishing I find is about the same as former years.

From Overseer C. Twamley, of Cavan, for Townships of Cavan and Manvers

Black bass were more numerous than ever when they came up to spawn.

Speckled trout also were plentiful.

The partridge and black ducks were very numerous.

Mink are scarce but muskrats are plentiful.

Black squirrels are very scarce.

Hares are often seen.

From Overseer John Watson, of Caesarea, for the Townships of Cartwright and Manvers, the waters of Lake Scugog, fronting on said Townships and the waters tributary to said lake.

Mink are very scarce and I think the open season for them should be from the first of November to the first of January.

Muskrats are plentiful but I would say that the open season for these should be from the first of March to the first of May.

The white rabbits and the cotton tail rabbits have died out owing to some disease that has attacked them during the past two or three years.

Partridge are not so plentiful as the wet season destroyed the young birds to some extent.

Ducks are numerous but I would say that the shooting season should not open before the 15th of September.

ELGIN COUNTY.

From Overseer Kenneth McClennan, of Aylmer, for Townships of Yarmouth, Malahide and Bayham.

The herring fishing in the fall of 1915 was almost a total failure the smallest catch in a number of years.

The spring run of 1915 was very good especially at the west end of the lake.

The catch of blues has been very good but the prices for that class of fish has been low.

I think the catch of whitefish has been below the average.

The pound net fishing has been lighter than last year up to the 1st of October, but since that time the catch of blues has been very heavy.

I think the new regulations are working out well under the supervision of Captain Corson in command of the Ontario patrol cruiser LaSalle.

The game in this section consists of black and grey squirrel. They are more plentiful this year than usual.

Partridge are quite plentiful this season.

ESSEX COUNTY.

From Overseer Chas. L. Coultis, of Leamington, for the Townships of Malden, North and South Colchester, North and South Gosfield and Mersea.

Ducks are generally decreasing, the marsh varieties (grays and black mallards) are limited to small numbers. Seal are very scarce and wood ducks nearly extinct. Open water ducks such as bluebills, redheads, ruddies, golden eyes and butter ball are very scarce also.

English pheasants are fairly plentiful.

Hungarian partridge have done well and are meeting with favor as a substitute for quail.

Woodcock are nearly extinct.

Black squirrels are very scarce existing only in some localities.

Muskrats are not increasing, the long open season is much against them.

Rabbits (cotton tails) are plentiful.

The catch of commercial fish has been very light up to this time, October 31st.

From Overseer A. Drouillard, of Tecumseh, for the County of Essex.

Spring fishing was good especially in Lake St. Clair, the catch of rough fish being exceptionally good, but the amount caught this fall has been insignificant, in fact practically no whitefish has been caught at all in Lake St. Clair as compared with former seasons.

The ducks have not been numerous this year.
Muskrats about the same as other years.

From Overseer H. A. Henderson, of Pelee Island, for Pelee Island and the other islands in Lake Erie.

Commercial fishing in this district has not been as good as in former years, although I think the white fish are on the increase. Angling also was very poor.

There is no game here except wild geese and they were very plentiful in the fall and spring.

From Overseer Remi Laframboise, of Loiselleville, for Detroit River, fronting Townships of Sandwich, West Anderdon and Malden, and also Canadian islands in said river.

The fishermen report that the fishing season has been quite satisfactory as a whole although there have been very few white fish caught in the Detroit River this present fall to date.

The carp fishing has been very good and the price higher than in previous years.

Bass, pickerel and perch are about holding their own.

Quails are very plentiful.

Black and gray squirrels are very scarce.

Black and grey mallard ducks were plentiful early in September.

Canvas back, blue bills, red heads, were not as numerous last spring as they have been in the last few years.

Muskrat and rabbits seem to be quite numerous.

FRONTENAC COUNTY.

From Overseer Melzar Avery, of Sharbot Lake, for Township of Oso.

The fishing in Crow Lake, Eagel Lake, St. Georges' Lake and Sharbot Lake has been very good this season.

Partridge, ducks and deer are very plentiful and should afford good sport for the hunters.

From Overseer George Barr, of Harrowsmith, for Township of Portland.

Angling in Fourteen Island, Rock Silver, Long, Mud and Desert Lakes was excellent this year.

First and Second Depeau Lake should be stocked with pickerel.

Napanee Lake being over-stocked with catfish and there being no game fish I would recommend one set of hoop nets being allowed.

Trapping was poor last season, due, I think, to weather conditions and to the long season allowed for trapping. This could be remedied by shortening the trapping season, and charging a small license fee.

Game of all kinds is increasing.

From Overseer Matthew Cox, of Howe Island, for the waters of St. Lawrence River around Howe Island.

The anglers report fishing has been very good this season.

Ducks were plentiful also.

From Overseer Henry Drew, of Long Lake, for Townships of Olden and Kennebec.

Fishing in my district has improved greatly.

Partridge are very plentiful.

Deer are more plentiful around than they have been in years.

Mink and fur-bearing animals are very scarce.

Deer seem to be scarce. I would strongly recommend that hunting with dogs be stopped at least for a time, as it is very evident that the dogs are driving the deer out of that part of the country.

From Overseer George Gates, of Kingston, for the Rideau waters between Kingston Mills and Brewer's Mills.

This has been a very good year for fishing, game fish being very plentiful.

Ducks are very scarce, very few being seen on account, I think, of the very mild weather.

I have seen quite a number of black squirrels on my travels, but have not seen many partridge in this district.

From Overseer Henry Holliday, of Wolfe Island, for the Township of Wolfe Island and for the Islands of Simcoe, Garden and Horseshoe.

The fishing in my district has been good with the exception of bass in the first part of the season, but later all fishing was good, maskinonge being very plentiful, and the anglers had a good season.

The hoop net fishermen report not as good a season as in 1914. They think the reason is on account of the water being so low.

The gill net fishermen report the salmon and whitefish to have been as good as in former years.

Wild ducks were not very plentiful until the 20th of October, and since then there have been great quantities.

The muskrats are becoming very scarce. I would recommend that the season should not open until March 15th. There would then be no breaking of houses or runways.

From Overseer J. A. Kennedy, of Tichborne, for Eagle Lake, in the Townships of Hinchinbrooke and Bedford.

The Americans who visited the waters of this district this year report fish plentiful, in fact they could catch their number in a few hours.

I think the opening of Bobs Lake to hoop net fishing will remove many coarse fish which are numerous in these waters, particularly ling, a fish very destructive to other kinds.

Partridge and ducks are very plentiful this fall.

Muskrats are very thick in Bobs Lake, but mink are scarce.

Foxes and skunks are plentiful.

From Overseer B. A. Lake, of Inverary, for the Township of Storrington, including Rideau Waters from Brewer's Mills to south limit of the Township.

Bass fishing has been good this year but few salmon have been caught.

Ducks are very scarce this fall.

Black squirrels are plentiful.

Partridge are very numerous.

-From Overseer Thos. Marsh, of Collins Bay.

Bass are very scarce in this Bay but pike seem to be quite plentiful this fall as well as perch and other small fish.

Ducks were very numerous this spring, more so than now.

Partridge are reported to be scarce in this locality.

Black squirrels are very plentiful, more so than grey squirrels.

Cotton tail rabbits are very plentiful and becoming a nuisance, especially to the gardens, etc.

Muskrats are still plentiful, but skunk seems to be decreasing.

From Overseer Wm. Truelove, of Fermoy, for the Township of Bedford.

Red deer seem about as usual.

Partridge are quite plentiful.

Ducks are scarce.

Black squirrels are getting very numerous, the farmers grumbling about their taking corn out of their corn cribs.

Muskrats are quite plentiful.

Mink are rather scarce.

Foxes seem plentiful and are still killing hundreds of turkeys in this section.

We have no beaver nor otter in this section.

Bass fishing was not very good in Wolf Lake this summer, but good in most other lakes.

I planted some fifty salmon trout, parent fish, taken from Garter Lake in Wolf Lake last March, which was much approved of by the residents and tourists that own cottages on the Lake.

Herring fishing last fall was extra good in all the lakes where they were fished for, especially Devil Lake where I saw some extra large catches, one fish being of a good size.

I only saw two salmon trout caught, though some think that a lot of trout are caught while herring fishing, they are mistaken especially as to Devil Lake.

The hoop net fishermen in Bobs Lake are getting more ling than all other kinds put together. I believe the hoop nets will help that lake.

From Overseer C. W. Dine, of Kingston, for City of Kingston and waters fronting the City of Kingston.

There has been poorer fishing this year than last on the bass grounds in this district on account of low water no doubt on the shoals. The whitefish and salmon trout have been very plentiful.

Ducks don't seem to be very plentiful this fall.

Deer don't seem to be quite so plentiful as last year.

From Overseer F. L. Wormworth, of Arden, for the Townships of Kennebec and Barrie.

The deer hunting during the fall of 1914 was the best in a great many years. I sold about ninety licenses, the most of the hunters getting their number.

There were a few bears caught in this district also a few wolves.

Ducks are quite scarce.

Partridge are on the increase.

Muskrats and mink are quite plentiful.

Fishing was very good but tourists were not so numerous as last year.

GRENVILLE COUNTY.

From Overseer J. H. Boyd, of Merrickville, for Rideau River and tributaries.
Deer have greatly increased in number.

Muskrats are also numerous in this vicinity, but I think it would be advisable to prohibit fall and winter trapping.

The ducks seem to be decreasing this season in this division.

Partridge seem to be quite plentiful. The hunters in my district think it would be advisable to have the partridge open season start the same day as the deer season opens. Some hunters have found deer strung up to trees just before November 1st. They are quite convinced that it was the work of partridge hunters.

From Overseer James A. Fraser, of Prescott, for St. Lawrence River, from the head of Cardinal Rapids west to Union Park.

During the past year in my district not many fish were caught. The majority of boats were always fishing for what we call Channel Perch which were fairly plentiful. Bass being very very scarce. A few pike, pickerel, and an occasional maskinonge were caught and I would strongly advise that some bass fry be put in this part of the St. Lawrence.

Partridge are fairly plentiful, ducks also, but very wild.

After the close season ducks get more plentiful and very tame during the winter. This is accounted for by no shooting to scare them.

GREY COUNTY.

From Overseer James Gillespie, of Berkeley, for Electoral District of Centre Grey and for Township of Glenelg in South Grey.

In this territory there are a great number of inland lakes and streams which contain speckled trout and I am giving particular attention to them so as to prevent, as far as possible, the illegal taking of these fish.

I keep the regulations posted up around the lakes and along the streams, and in other places where the public can see them.

In April last I assisted Mr. H. Watson to deposit several thousand speckled trout fry in Ewart's Lake which connects with Bell's and several others in the Townships of Holland and Glenelg, in August last I also assisted him in depositing several thousand speckled trout fingerlings in the same place.

I am of opinion that far more success will be obtained in stocking those lakes by putting in fingerlings, as I have been watching for results and believe that the chub and sunfish destroy many of the fry while the fingerlings seem to be better able to take care of themselves.

The usual number of campers were around those lakes during the summer but anglers were not very successful, their catches in most cases were small. I believe we have about stopped the netting in those lakes.

Herring is believed to be plentiful in those lakes as hundreds were caught each season years ago with nets. No one has been known to get any with hook and line.

Partridge are about as plentiful as last season, while ducks are scarce.

Beaver seem to have left some of their old haunts and are not as plentiful as a few years ago.

Hares are plentiful, and I am still of the opinion that much damage is done by dogs hunting them in the spring months.

I am of the opinion that it would be a step in the right direction if a small fee was charged for carrying a gun, I find many people in favor of it.

From Overseer James Myers, of Holstein, for the Townships of Proton, Egremont and Normanby, County Grey, and Townships of Minto, Arthur and Welland, County of Wellington.

The chief fish in my district are speckled trout and black bass. The trout catches were very good.

Deer are also increasing owing to the protection of a close season for three years.

Hares are plentiful.

From Overseer Thomas McKenny, of Thornbury, for County Grey, exclusive of the Townships of Proton, Egremont and Normanby.

I find that there is divergence of opinion amongst the fishermen as to the advisability of issuing hook and line licenses. The lines and hooks catch in the nets and when tangled with their nets make lifting very dangerous.

The action of your Department in getting the closed season abolished in the Bay this year has been highly appreciated, particularly in view of the scarcity of work and high prices for food during these hard war times. It is also the belief of some, that if instead of a close season hatcheries were built the country would be benefited by fishermen getting full grown fish in exchange for fry and the water would not be depleted.

HALDIMAND COUNTY.

From Overseer James W. Lee, of Wellandport, for the Townships of Moulton, Sherbrooke and Wainfleet.

Last fall the fishermen reported their catch as being as good as they had had for several years. Herring was quite plentiful. Perch, pickerel and coarse fish were up to the average. Whitefish were fairly good. This season fishing has not been quite so good.

Owing to the cold and backward spring coupled with the wet summer, tourists were few this season and as a result there was not so much angling in the Grand River.

Quail are quite plentiful but there are no woodcock or plover.

Partridge and pheasants are very scarce.

Wild ducks are quite plentiful and a number of wild geese harbored in this district last fall.

Black and grey squirrels are very plentiful and seem to be on the increase.

Muskrats are very plentiful and greatly on the increase. I think on account of the low price of furs they haven't been trapped or shot as much as usual. Mink are very scarce.

Cotton-tail rabbits are very numerous.

From Overseer James Vokes, of Nanticoke, for Townships of Walpole, Rainham, South Cayuga and Dunn, and the waters of the Grand River, fronting the Townships of Oneida, Seneca, S. Cayuga, N. Cayuga, Canborough and Dunn.

The gill net fishermen at Port Dover and Port Maitland have had fair fishing. Nothing big with the whitefish. In the early spring the tugs operating from Port Maitland brought in big catches of pickerel and herring. The late fall fishing in 1914 was very good.

The pound net fishermen last fall had a very poor season, owing to very high winds and the whitefish went off shore early. The summer fishing has also been

below the average, herring, pickerel and perch being scarce. Sturgeon about as usual. The fishing this fall is also very poor, the whitefish not being present in any quantity so far.

Black squirrels are on the increase, the close season in this County having a beneficial effect. It is rather a hard matter to keep the young sports from getting after them, but nevertheless their numbers have rapidly increased the last two years.

Muskrats are quite plentiful again, the low price of furs last winter and spring not being much attraction to the trappers to take them.

Mink are very scarce.

Quail and partridge are still very scarce in this section.

The ducks are reported as very scarce so far this fall along the Grand River and but very few are seen along the lake shore.

Coon, skunk and rabbits are very plentiful all over the County.

I would again strongly urge that all trappers be licensed, as it is the only way to keep control over them, and make the close seasons observed.

HALIBURTON COUNTY.

From Overseer Manly Maybee, of Cameron, for Sturgeon Lake, beginning at Day's Landing and running south for five miles, including McLaren's Creek, Sturgeon Point and Pleasant Point.

The spring was unfavorable for the trappers on account of late ice and rough weather. Mink were not so plentiful. I am of the opinion that the close season for mink should be from the 1st of March to the 1st of December, as the fur fades badly in the March sun.

The extreme cold, rough weather this spring was a great protection to the fish in spawning season. Angling was good both for maskinonge and bass this season.

Ducks seem to be as plentiful as usual.

Partridge and rabbits are as plentiful as ever.

There are a few beaver in this locality and no black or grey squirrels.

Foxes, coons and skunks are plentiful.

There are no deer in this locality.

HALTON COUNTY.

From Overseer R. M. Brown, of Milton, for the Townships of Nassagaweya and Esquesing.

Partridge fairly numerous on the mountain range, but not very plentiful on the lower ground.

Woodcock very scarce.

Quail, two years ago we had a few in the Township of Nelson, but this season I have not heard of one in the whole County.

Black and grey squirrels very plentiful.

Raccoon fairly plentiful.

Mink very scarce.

Muskrat about the same as last two years.

Speckled trout gradually disappearing. A stream here that used to be one of the best, owing to cleaning up of brush and the proprietors using no means of protection it is almost depleted.

Cotton-tail rabbits are very plentiful although a great many were taken last year.

Hares are getting very scarce here owing to so many swamps being cleaned up.

I trust that before next season a suitable gun license will be imposed, every sportsman in this part I am sure will be prepared to pay a dollar license, as it would stop a lot of the shooting that goes on at all seasons with the 22 rifles.

On a line with the prohibition to hunt ducks from motor boats, it will soon be time to stop hunting with automobiles. They are driven along the roads and the dogs dropped into any good looking bush, and after taking what they can get away they go to another place. Something will have to be done or the game will soon be cleaned out.

From Overseer W. Sargant, of Bronte, for County of Halton.

The catch of herring in this district will probably show a larger increase than any previous year since I have been in office and that is over twenty-five years. They are large and a fine sample of fish.

I am also pleased to report that whitefish are increasing.

Trout are about the same as previous years.

All the fish that have been taken have been disposed of for home market and prices have been fair.

Angling in the 12 and 16 mile creek has been about the same as in former years.

The close season for black and grey squirrels and partridge in the County of Halton has resulted in a great increase in the squirrels and I think a small increase in the partridge.

I am of the opinion that any one who goes hunting or shooting in the woods should take out a license especially foreigners.

HASTINGS COUNTY.

From Overseer H. C. Armstrong, Glen Ross, for the Trent River, from its mouth to Chisholm's Rapids, and tributaries thereto, and to Trenton Junction:

Bass, maskinonge and pickerel are very scarce on account of no fish slides in the eight dams between Trenton and Glen Ross.

Suckers are very numerous and they destroy a lot of spawn.

Sturgeon are very plentiful. They can be seen by the dozen trying to get up over the dams.

Summer ducks are very plentiful.

Winter ducks were very numerous last winter.

Partridge are quite thick.

Black and grey squirrels are increasing very fast.

Mink are scarce and muskrats are plentiful.

Cottontail rabbits are very numerous and increasing every year.

From Overseer Robert T. Bonter, of Marmora, for Township of Marmora:

Most of the hunting parties that I have heard from got their number of deer, and moved out before the season was half over. Strange to say fully 80 per cent. of the deer killed in this district were bucks.

Black bass and maskinonge fishing have been good this season. Yellow bass not so good as in former years, due no doubt to scrub fish, such as bullheads, ling and eel destroying their spawn.

Mink and muskrats are quite plentiful.

Beaver and otter are very plentiful.

Ducks are not very numerous, no doubt owing to high water drowning out the rice.

Partridge are plentiful.

From Overseer Thos. Gault, of Deseronto, for the Bay of Quinte, East Riding County of Hastings, and for Moira River and other waters in said Riding.

The catch of fish in my district has been very good this season.

There were not as many anglers as usual, the war no doubt being the cause.

Bass were very plentiful, white fish and salmon extra good. Coarse fish were caught in great quantities.

Ducks are numerous.

Muskrats are more abundant than in former years.

From Overseer John Haggerty, of Gilmour P.O., for townships of Grimsthorpe and Cashel.

Partridge are very scarce.

Deer are plentiful.

Beaver numerous and increasing.

Mink quite plentiful, but muskrats less so.

Otter and fisher are quite scarce.

Speckled trout and bass are very plentiful.

Wolves are very thick through centre of township of Grimsthorpe.

From Overseer James McCaw, of Bancroft, for Townships of Faraday, Duncannon and Herschell.

The past season has been one of the best on record with regard to Baptiste Lake. Some very fine catches have been taken. A lady captured a trout weighing 27¼ lbs., and another fisherman caught some bass weighing 4 and 5 lbs. each. This lake if given publicity would soon become one of the best summer resorts in this Province, as train services are good.

Other lakes and creeks have been as usual with regard to fish. Speckled trout and bass are getting plentiful, but of small size.

Mink and muskrats are not so plentiful.

Beaver and otter are getting more plentiful.

I would recommend that the close season for partridge should be from November 1st to Nov. 15th in each and every year so long as deer season remains as at present—November 1st to November 15th in each year.

From Overseer J. W. McGowan, of Tweed, for the Townships of Hungerford and Huntingdon.

Fishing has not been as good as in former years but some nice large maskinonge have been caught.

Ducks were scarce during the first of the season, but are more plentiful now.

Partridge are quite numerous.

Black squirrels are very plentiful.

Rabbits are not so abundant as in other years.

Mink and muskrat are quite scarce.

Bears have been seen and a few killed.

Deer are quite plentiful in this district.

From Overseer J. A. Moore, of Trenton, for that portion of County of Hastings fronting Bay of Quinte from City of Belleville, west to the Trent River, as far as Trenton Junction.

Angling was very little indulged in this last season, and only one license was taken out by tourists for that purpose, but the tourist traffic was practically nil and this should have an effect upon the increase of bass and other game fish, though local anglers reported great scarcity and very few catches.

Ducks were very scarce during this last season and few have been killed. Whether the number is decreasing, or whether they have stopped tarrying in these waters in the fall I cannot say, but all the hunters reported very few ducks. It may be that the manner heretofore used of shooting for the market by a great number of persons is the cause of it, and if such be the case to prohibit the sale of wild ducks would aid in protecting these birds.

Partridges are very scarce and very wild, and hunters from the north of this county report a scarcity of birds, and it would appear from this that the effect of the two years' close season has worn off.

Black squirrels are quite plentiful this year, but there had been a great slaughter of these animals prior to the opening of the season, as in the country districts outside of the limits of the town there does not appear to be any protection whatever, and I am told that shooting was going on all through September and October, so that when the season opened for shooting squirrels they were practically exterminated in this vicinity. I would recommend, therefore, that there be a change in the black squirrel season, say, from the 15th October to the 1st November, and that for the next two years shooting of black squirrels in the County of Hastings and Northumberland be entirely prohibited, which would give these animals a chance.

From Overseer J. W. Morton, of St. Ola, for the Townships of Limerick, Tudor, Wollaston, Cashel Lake and Grimsthorpe.

Bass and trout fishing was fairly good this season.

Deer are reported to be plentiful, also a number of moose have been seen.

Partridge seem to be quite plentiful.

Ducks are scarce but I hope to see more next year as we have planted wild rice, celery, and duck potatoes.

Not many muskrat and mink are seen.

Beaver and bears, also wolves, are quite numerous.

From Overseer E. A. Wootton, of Maynooth, for the Townships of Bangor, Wicklow and McClure.

Deer are reported plentiful in certain sections, especially in the neighborhood of Algonquin Park, and we hear of quite a number of moose being seen.

Partridge are reported in better flocks than last year, and are, I think, on the whole more plentiful, but in some sections where bush fires occurred last year very scarce.

Ducks are comparatively scarce.

Fur-bearing animals are getting very scarce except the beaver, which seems to be increasing fast and are plentiful, and we hear of most of the streams being dammed that are not too near the settlers.

Fishing has been very good, both brook and salmon trout being plentiful.

HURON COUNTY.

From Overseer Robert McMurray, of Bayfield, for the County of Huron.

Fishermen in my division have had a fairly good season. The gill net fishermen say trout has been more plentiful this year than they were in 1914, and the pound net fishermen report their catch as very good, much better than it was in 1914. I think, taking the season of 1915 as a whole, the fishermen have very little to complain of.

Bass fishing was not very good.

Perch were plentiful in the early part of the summer and also in the fall.

Partridge are becoming more scarce each year in consequence of nearly all the woods being cut down.

Rabbits are numerous.

KENORA DISTRICT.

From Overseer George H. Fanning, of Sioux Lookout, for that portion of the Kenora District beginning at Quibell and east to the boundary line between the Districts of Kenora and Thunder Bay.

The sale of moose and deer hunting licenses has been very good, but not quite up to last year. Neither has there been anything like so many killed, although they are very plentiful. This is owing to the fact that every available man has been working on the Government railway helping to rush the wheat east.

The resident trappers and small dealers are buying licenses almost to a man. They say that they think it would be well if the Government would raise the cost of licenses to five dollars, as that would have a tendency to keep a great many people from dabbling in the fur trade.

From Overseer W. G. Muncer, of Minaki, for that portion of the Kenora District between Quibell and the boundary line between the Province of Ontario and the Province of Manitoba.

"Fishing on the Winnipeg River and the Trout Lakes has been splendid. Some of the finest specimens of maskinonge that were ever caught, weighing over 40 lb. each, lake trout from 15 to 20 lb., have been taken. Pickerel also were of very fine size. Fish of all kinds appear to be plentiful, and the lakes throughout the district are in excellent condition.

Red deer appear to be just as plentiful as ever.

Moose and caribou are not so numerous.

Fox, mink, lynx, and muskrat are plentiful.

Brush wolves are very numerous and are becoming a serious menace, causing fearful destruction to the deer and small game.

Duck, partridge and rabbits are very scarce indeed.

I would recommend that the small game season be closed for two or three years. I attribute the scarcity of small game to the wolf. These animals are bad on the eggs of small birds during the breeding time. I have never known partridge or rabbits to be so scarce during the past nine years. I would also suggest that a bounty for the brush wolf and coyote be paid. This will encourage the public to hunt them.

Beaver have put in an appearance both east and west of Minaki.

The following lakes have been stocked during this spring with salmon trout fry, viz.: Red Deer, Star, Farlane, Vermilion, Sand and Fox Lakes. Sportsmen are anxiously looking forward for black bass stocking of the Winnipeg River, Gun Lake, Pistor Lake. I can recommend these waters for bass.

KENT COUNTY.

From Overseer John Crotty, of Bothwell, for the River Thames between village of Wardsville and easterly limits of County of Kent.

Game birds are more plentiful, especially partridge and woodcock. Thanks to protection, there is a very noticeable increase in the number of quail.

Black squirrel seems quite plentiful.

A few muskrats are the only fur-bearing animals in the district.

From Overseer John Featherston, of Wheatley, for Townships Romney, East Tilbury and Raleigh.

The fishing during the months of November and December (1914) was about up to the average.

Some fine catches of whitefish were brought in from the pound nets, and the price being very high brought the result well up to the average year.

The tugs fishing gill nets made some large catches of whitefish and pickerel during the early spring, but later their catch was only fair fishing. The pound nets during the present season have had very light catches and nearly all fish seem very scarce, especially herring, which has in the past been our great commercial fish, in fact this year it seems almost to be depleted, but no good reason for this is offered by the fishermen. Some say we have had too much east wind, while others say we are allowing too much fishing with gill nets, and others are of the opinion that Lake Erie is fast being depleted of herring. The catch of Blue Pike seems to be the most profitable this season, with good prices except in the spring, when there was a glut.

Quail seem to be very plentiful, and with proper protection as at present will increase.

Squirrels are more numerous than for years.

From Overseer Richard Little, of Wallaceburg, for County Kent, fronting on Lake St. Clair, exclusive of Dover West Township, also Walpole and Ste. Annes Islands, County Lambton.

Commercial fishing has been exceptionally good; carp were caught in great numbers during the spring and summer, but the quantity has fallen off somewhat during the autumn months; in fact, at present almost none are being caught.

Angling for bass and other game fish has not been as good as in former seasons; this is, no doubt, accounted for by the bad weather conditions.

The lake and marsh ducks are here in great quantities.

Quail are reported to be increasing in some sections of this district; snipe and woodcock seem to be not appreciably decreasing.

From Overseer James McVittie, of Blenheim, for the Townships of Orford, Howard and Harwich.

During the spring of 1915 and all through the summer till date of writing the fishing has been very poor and the pound net fishermen will not make enough this summer to pay their help, unless the fall season is better. Some of the gill net men had the best spring fishing they ever had, the catch being very large and the prices good.

Ducks are not very plentiful yet, as the hides have to be put on shore and not built out in the water this year the poor man who goes for a day's shooting has just as good a chance as the fellow who could stay there all season in his box, big enough

to live in 200 yards from the shore and no person to bother him, this year he stays on shore with the other fellow and takes his chances as he ought to.

We had better angling fishing this summer than for seven years, \$500.00 being collected from Americans for angling in Rondeau Bay.

From Overseer Archibald Patterson, of Bothwell, for that portion of the River Thames lying between the Village of Louisville and the easterly limits of Kent County.

There were not many fish caught in my district this season, as when the river got low enough to fish the water got very clear in a short time, and they do not catch many fish in clear water.

Black squirrels are very numerous and quail have increased wonderfully owing, no doubt, to the close season declared last year.

Partridge and woodcock are scarce.

From Overseer George Peltier, of Paincourt, for River Thames from Lewisville to its mouth, also the tributaries of said river between these points; also Township of Dover West.

The number of fish caught by the licensed fishermen on Lake St. Clair was about the same as last year.

The roll nets in the River Thames used by the farmers proved very satisfactory, enough fish being caught for home use.

Ducks are plentiful this fall, but quail and other game are very scarce in my district.

Mink and muskrat are also scarce, the latter owing to the water being so low this year.

LAMBTON COUNTY.

From Overseer H. A. Blunden, of Sarnia, for County Lambton, exclusive of Walpole and St. Ann's Islands.

The pound net fishermen began operations at about the usual time during the month of May. During the season some got very good lifts.

Wild geese were plentiful during the spring flight, particularly in the eastern part of this county, but they do not seem so plentiful this fall.

Black squirrels seem numerous this fall, so when the season opens I think sports will find plenty.

Quail do not appear to be increasing.

Musk rats and other fur-bearing animals do not seem to be as plentiful as they were a few years ago.

I am making every effort through interviewing sportsmen and putting up posters in all parts of the country to encourage the observance of the Game and Fishery Laws.

LANARK COUNTY.

From Overseer G. Burke, of Perth, for the Townships of North Elmsley, Drummond, North Burgess and the first two concessions of the Township of Bathurst.

Partridge are plentiful this fall and deer also. Last year there were a number of deer shot within half a mile of the limits of the town.

There were not many fur-bearing animals caught around here last spring, as prices were down and the boys did not trap.

Ducks are plentiful.

I went out to Christie's Lake to watch the pickerel run this spring. The run was well on about the 15th and lasted till the 27th, then the suckers and catfish came on. The night of the 27th the catfish were standing on their heads in the rapids picking up the pickerel spawn. A man had to see it to believe it.

Catfish and suckers should be taken out wherever there is game fish. It is a good thing to give the people a license for whitefish, also to fish hoop nets, as the latter clean up the coarse fish and give the game fish a chance.

From Overseer Ephraim Deacon, of Bolingbrooke, for the Townships of Bathurst and South Sherbrooke, including Christy's Lake.

Pickerel were very numerous on the spawning beds this spring and seemed to be on the increase.

Ducks appear to be very scarce this season, but partridge are quite plentiful.

Mink and muskrats are not so plentiful as a few years ago.

The angling has been very good this year, although not quite so many non-residents applied for permits as last year.

From Overseer Wm. Pepper, of Lanark, for the Townships of Drummond, Lanark, Darling and Lavant.

Fish apparently have been more plentiful this year than at any time heretofore for several years. This may be accounted for by the lessening amount of angling. The Mississippi and the Clyde River with their enlargements are becoming well stocked with pickerel and black bass, but the quantity of pike in these waters is appreciably declining. In the other waters of the district pike are plentiful, also perch, rock bass and bullheads.

In the regions where deer are to be found they seem to be more plentiful this year than usual, and some have been seen in various places where they had not hitherto been noticed.

Partridge this season are not so numerous as formerly. This undoubtedly is owing to the eggs having been spoiled by the wet weather during the nesting or hatching season.

There was also a perceptible falling off of the number of wild duck usually found in the lakes and rivers of the district.

From Overseer J. H. Phillips, of Smith's Falls, for County of Frontenac lying north of the Townships of Kingston and Pittsburg, the Townships of North and South Crosby, Bastard, South Elmsley and Kitley, County of Leeds and County of Lanark.

During November kept a patrol of Rideau Lake during the whitefish run. had a launch rented for a week after patrol boat *Ella C.* was laid up. Found many fishermen that were licensed, all fishing legally and pleased to get a few whitefish.

December, January, February and March were not busy months, but I made frequent trips over my district to see no illegal work was being done.

In June started with *Ella C.* and patrolled Rideau waters steadily until October 31st. Though there were not many tourists from the United States the Rideau was crowded by residents of the Province. Permits sold were about the same as last year.

The salmon fishing was excellent; the bass fishing was also good. I think it would be a good thing to shorten the time for fishing whitefish to ten or fifteen days.

The black ducks were very plentiful more so than they have been for twenty years.

From Overseer Fred Stanzel, of Carleton Place, for Townships of Beckwith, Drummond, Ramsay and Pakenham in the County of Lanark, and Townships Fitzroy, Huntley and Goulbourn in County Carleton.

Black bass are about normal, but pickerel are greatly increasing. Coarse fish are plentiful.

Mink and muskrat are about normal.

Partridge are about the same as last year.

Frogs are very scarce.

LEEDS COUNTY.

From Overseer W. J. Birch, of Delta, for upper and lower Beverley lakes and rivers.

Taking into consideration the large number of hunters in this locality for duck, partridge and squirrels they were all quite numerous. However, I would advise that the squirrel season should open at the same time as the partridge season. I consider that the way it is now that it is too much of a temptation for the hunter to shoot squirrels while hunting partridge and at the same time not giving the game warden a chance to get after them.

A few deer have been seen in this locality this summer a good proof that they are on the increase.

Our lakes were not as well patronized as formerly, a number of cottages being empty and very few non-residents and visitors, however, the fishing was good.

Muskkrats were very plentiful being caught up into the thousands in my district.

A few mink were caught but they are reported very scarce.

I strongly recommend a trapper's license, they are all expecting it.

From Overseer Gordon Clark, of Westport, for the Township of North Crosby.
Deer have been quite plentiful.

Muskkrats are numerous but mink are very scarce.

Fishing has not been quite as good as in former years on account of the water being low and probably because the fish have changed their feeding grounds.

Ducks are numerous and partridge are very plentiful.

From Overseer Herbert R. Covell, of Lombardy, for the Township of South Elmsley.

The fishing in Bass Lake was not as good as usual, owing, I think, to the ling being so numerous. I would like to see the ling fished out of Bass Lake as they are very destructive.

The fishing in Otter Lake is reported better than usual. There were a few salmon caught this summer, the first that I have known to be caught in this lake. I am keeping a close watch that there is no netting going on in these waters.

Ducks, squirrels and partridge are about as numerous as usual.

From Overseer John Fleming, of Newboro, for the Counties of Leeds, Frontenac, Lennox and Addington, Hastings, Prince Edward, Northumberland, Lanark, Carleton, Russell, Prescott, Glengarry, Stormont, Dundas and Grenville.

In the course of my work of patrolling the Bay of Quinte and other eastern waters, I found the bass fishing good, in many places better than in former years.

In the River St. Lawrence I believe the regulations to have been well enforced and I found very few opposed to the enforcement, that of requiring the taking out of angling permits by non-residents.

Ducks and partridge are plentiful.

I beg to recommend that the season for trapping muskrats be from the first of March to the first of May as I think many are caught in their houses and in banks.

From Overseer John McGuire, of Jones Falls, for Rideau River, fronting on the Township of South Crosby.

During the winter months of 1914 and 1915 nothing very extraordinary occurred, I did considerable driving, mostly on the ice after the ice was safe to drive on, my object being to look after the trappers who if not watched closely by the overseer will be breaking the law by cutting into the muskrat houses. They cannot catch muskrats in winter at all without doing this and nothing but real earnest perseverance will prevent them cutting into the houses or into the runways leading to the house, one is as bad as the other. There are none but unprincipled men will offer to trap for muskrats in the winter season for they know before they commence that they are going to break the law. They cannot get any muskrats without breaking the law. The muskrats are all down under the ice during the months of January and February the ice is thick and the snow is deep, no possible way to get to the rats only by cutting into their houses. The honest trapper never tries to do anything in the trapping line until the month of March when the ice begins to thaw out around the shores, then the muskrat comes up and can be caught without violating the law. After ten years' experience as overseer and after a lot of study I have come to the conclusion that the open season should not commence until the first of March, the months of March and April are or should be the open season. I earnestly suggest that this change be made the two months mentioned. March and April are open season enough, any honest trapper will recommend this.

Muskrats were never so plentiful as this last spring owing, I think, largely to the vigilant warfare that I carried on during the winter months. I watched the trappers so close that they gave it up and there were very few muskrats caught during the winter and when the proper time came the rats were plentiful in the district. Our best trapper here at Jones Falls, former springs used to get in the neighborhood of three hundred muskrats during the months of March and April. During last season (1915) this same trapper caught 500 rats in the vicinity of Jones Falls. This trapper recommends the cutting out of the winter trapping until the months of March and April.

Fishing through the ice is carried on quite extensively in this district and to protect the bass requires a lot of exertion on the part of the overseer as it is carried on in so many different places at the same time.

Last season from the time of setting hoop nets until the time of taking them up, viz., the 15th of April the fishing was good.

The fishermen of my district wore a smile certainly last spring. Good fishing, large catches and good prices—part of the season as high as 12c. per pound for dressed bullheads and 6c. for rough or undressed sunfish was realized by the hoop net fishermen. At the present time the prices are not quite so good as last

winter or the first part of the present year, but the fishermen that have set their nets and commenced fishing report good catches.

On the 10th of June the first non-resident tourists came to Jones Falls and commenced fishing for pike putting back into the water any bass that by chance would take the hook until the 15th of June when the season opened for all species of bass.

For the remaining half of June the number of American tourists to the hotels and fishing in the waters of this district were just about equal to other seasons, but later on it was a long way short of previous years.

While the number of non-resident tourists during the month of July decreased the resident tourist traffic was greater than ever. The hotels and boarding houses as well as the guides made as much as any previous season.

I never saw the tourist fishermen as well pleased with the fishing as they have been in this district this present season, I never saw as fine catches or as large bass as I saw this season spread out on the lawns of the hotels at Jones Falls and Chaffey Lock.

I feel compelled, however, to refer to a class of tourist coming mostly from Ottawa, Toronto, Kingston and Hamilton, who live on their own boats. They spend no money in the district yet destroy and take away large quantities of fish. The season just passed has been a very severe season on the fish in the waters of my division, especially on the bass, largely owing to the class of tourist mentioned above. The Canadian tourist certainly is harder on the fish than the American tourist and this has been the hardest season on the fish in the Rideau Canal waters in ten years, but all the same the bass fishing has remained good right up to the close of the angling season.

Ducks are very scarce on the Rideau this fall, more so than I have ever seen. Partridge also are pretty scarce.

Rabbits are plentiful and I have heard complaint from some of the farmers of damage being done by them in the grain fields.

Black squirrels too are very plentiful and a lot of complaints have been made by the farmers of damage to the cornfields.

While the angling continues good in this district I would recommend in reducing a day's catch of bass to five, this would help to maintain the supply and it would satisfy the tourists just as well as eight the present number.

From Overseer William Spence, of Charleston, for Charlestown Lake and its tributaries.

Angling was better than in former years, although fewer tourists visited the lake. The salmon fishing never was better.

Ducks were plentiful on both Charleston and Wiltse Lakes.

Mink, muskrats and black squirrels are scarce.

Partridge are quite plentiful.

From Overseer J. H. Stewart, of Brockville, for the Townships of Elizabethtown and the front of Escott and Yonge.

The past season has been a most favourable one for both fish and game.

Maskinonge fishing never was better than it has been this season, especially in the vicinity of American and Black Charlie Island.

Bass and pickerel fishing was also good.

Ducks, partridge and snipe are quite plentiful.

From Overseer George Toner, of Ganonque, for the River St. Lawrence from head of Howe Island to Union Park.

The tourist traffic during this year has not been up to the standard. Many of the island cottages were not occupied during the season. Some who usually spend several months among the Thousand Islands each year were here for only a few days this season. They told me that owing to the fact that they were filling war contracts it was necessary for them to be constantly at their places of business.

The fishing in these waters seems to improve each year. The quantity and quality of all kinds of game fish have been better this season than for years.

During the spring of 1915 ducks were very plentiful but they have been very scarce on the River St. Lawrence this fall.

Partridge, black and grey squirrels are very plentiful. There are also many snipe and plover.

Muskrats, if one can judge from the number of rat houses that appear, are more numerous than for many years.

I respectfully recommend that the open season for muskrats be from March 1st to May 1st and the close season for the remaining months of the year.

With reference to the imposition of the rod license for non-residents of the Province, I beg to report that of all those from whom I collected the license fee only two offered any objection whatever. They very willingly paid the fee after an explanation had been made to them. The majority of them expressed their appreciation of the fact that the waters of the river were being protected from illegal fishing and piracy of all kinds, and their desire to pay the fee demanded of them for the privileges they enjoyed.

From Overseer James Townsend, of Lyndhurst, for Lyndhurst waters south of Lyndhurst, also South and Gananoque Lakes.

Fishing has been fair, some fine catches of bass being made during the first two weeks of October.

Game is fairly plentiful especially partridge for each of which I would recommend both a trapper's and a gun license. A small fee of \$2.00 might be charged.

From Overseer J. R. Wight, of Newboro, for the Rideau waters between Chaffey's Lock and Newboro, including Indian, Benson, Mosquito, Clear, Mud and Loon Lakes, and also the Upper Rideau.

The fishing has been exceptionally good this year, and although the number of tourists here this year was smaller than in previous years, it may be accounted for by the war.

Bass fishing has been better this year than ever.

The partridge have been plentiful this year and also there have been a great many ducks.

The catch of muskrat for this year has been about as usual, but I think that it might be better to limit the open season to March and April as this would do away with trapping the bank holes.

The mink are scarce around this district, in fact it is a very rare case where one is seen.

LENNOX COUNTY.

From Overseer P. W. Dafoe, of Napanee, for the Township of Richmond.

Angling has been a success. Many black bass have been taken.

Commercial fishing on the whole has been fairly good, prices being high and while a good deal went to the American market our own markets were well supplied.

Deer do not seem to have come south yet.

Ducks are in abundance.

Partridge are holding their own in point of numbers.

Muskrat, mink, black squirrels and the coarse fur-bearing animals are not decreasing so far as I can make out.

From Overseer G. H. Gurren, of Sandhurst, for the Township of Ernestown and South Fredericksburg fronting Lake Ontario and the Bay of Quinte, but not Hay Bay.

Commercial fishing has been very good all season. Whitefish and lake trout have been quite plentiful in this part of Lake Ontario, and some excellent catches of both have been made.

Whitefish in the Bay of Quinte have been very scarce, only a few good catches being made before the close season.

Eels have not been so plentiful as in other years.

Perch are becoming very plentiful in the bay and I am under the impression they should be netted to a greater extent as they are a great enemy to the young fry in these waters.

The laying out of the gaps has been a great help both for the Department and the fishermen, as previous to this each fisherman had his idea of where the lines were supposed to be, and now the buoys may be seen quite distinctly.

Bass fishing has been excellent all season although the anglers were not quite so numerous. Those that came report good fishing.

Ducks have not been so plentiful as in former years.

Black and grey squirrels are yet very scarce and partridge more so.

Red foxes are on the increase.

Muskrats are quite plentiful.

From Overseer E. M. Huffman, of Napanee, for the Townships of North Fredericksburg, Adolphustown, and South Fredericksburg, fronting Hay Bay and Bay of Quinte as far as Cole's Point, but not including the Napanee River.

Angling has been very good this season.

Black squirrels almost extinct.

Wild geese scarce.

Partridge plentiful.

Ducks are quite plentiful. If the sale of wild duck were prohibited for a few seasons it would be a benefit.

I would like to recommend a shorter season for muskrats.

LINCOLN COUNTY.

From Overseer Oliver Taylor, of Niagara-on-the-Lake, for the Niagara River, between Niagara Falls and the mouth of the river.

Herring, pickerel and small whitefish are very plentiful.

Large whitefish have been scarce, very few have been caught this season. The machine nets above Queenston have not done very well this season and the seine fishing in the river has not been very profitable.

Quite a number of sturgeon have been caught in the river by hooks.

The angling in the river this season has been poor.

Pheasants, the principal game in this district, were not as numerous as a year ago.

A quantity of ducks are moving around the lake this fall.

The fur-bearing animals are not very plentiful with the exception of a few muskrats in the ponds.

From Overseer J. C. May, of St. Catharines, for the County of Lincoln and over so much of the waters of Lake Ontario as lies in front of the said county.

Fishing has been very good this year. The fishermen being well satisfied with their catches. Herring and whitefish are very plentiful.

English pheasants are about the only game in this district and they are not very numerous.

MANITOULIN DISTRICT.

From Overseer W. M. Boyd, of Kagawong, for Kagawong Lake.

The past season opened with a cold wet spring and the partridge in this district at least have suffered more than any other of the game birds. Very small broods and very scarce to find at any time after the hatching season.

Ducks have been and are quite numerous, more plentiful than for four or five years.

The tourist season started in somewhat later than usual but has been fully as good as usual, keeping on into September.

Fishing in Kagawong Lake for small mouthed black bass has been a revelation to the angling world. Nothing to approach it has been reported from any fishing point that any of the visitors were acquainted with, and I believe we had the largest variety of towns, cities and states represented here this season of any.

Perhaps the most eventful thing in this lake is the number of otter appearing at different points.

Mink, too, appear to be doing well. Muskrat only fair.

Deer seem to be quite plentiful notwithstanding the objectionable provision which allows a farmer to get one deer without taking out a license. How easily many people get to think they are farmers for the moment, at least.

I am more thoroughly impressed than ever that no man or boy should be allowed to hunt without first procuring a license and I still think that if the fee is to remain at two dollars the licensee should be allowed two deer or otherwise one dollar and one deer.

I would further recommend a close season for partridge for a couple of years at least. The scarcity appears to be general from every point I have heard from, and I think we should give them an opportunity to increase.

From Overseer Andrew Hall, of Gore Bay, for west end of Manitoulin Island, including the Townships of Gordon and Mills, in the District of Manitoulin.

Commercial fishing has been very good in this district. Brook trout are fairly plentiful but not as many as usual were caught.

Bass are plentiful but fewer tourists than usual appeared this summer.

Partridge are very scarce. I would suggest a close season for one or two years.

Ducks are fairly plentiful.

Red deer are very plentiful although large numbers are taken each season.

In my opinion it would be better if the season for hunting deer was from Nov. 15th to 30th as it would be easier to follow a wounded deer as we usually have snow at that time. As it is at present, a great many deer are wounded and it is hard to track them, they lie down and die and are wasted.

Fur-bearing animals are scarce according to reports.

From Overseer Joseph Hembruff, of Manitowaning, for Lake Manitou on Manitoulin Island and the streams tributary thereto.

The angling for bass has been fairly good. They were larger than last year. Speckled trout are not very plentiful.

Partridge are very scarce this year. I think there should be a close season for about three years.

Ducks are plentiful.

Deer are more plentiful than they have been for years.

There have not been as many tourists here this year as in former years.

From Overseer David Irwin, Little Current, for that portion of the District of Algoma lying east of the Village of Algoma Mills, and for Cockburn and Manitoulin Islands, and in and over the waters that lie in front of the said district and which surround the said islands.

This season has been well up to the average according to reports from the fishermen. This season was unusual in that the whitefish run came on in August instead of June and July. The catch of pickerel was fully maintained.

Bass are plentiful but do not seem to bite.

Maskinonge fishing was poor, very few having been caught.

Brook trout do not appear to increase in numbers.

Muskrat are fairly numerous, but mink are scarce.

Partridge are very scarce and I would suggest a close season for two years.

Red deer are more plentiful than they have been for many years, but moose have not increased.

From Overseer James Lewis, of Sheguiandah, for north channel of Lake Huron, from the Soo to the Bustards.

There were not as many tourists as usual this season and the catches of black bass did not come up to other seasons but maskinonge were more plentiful.

Red deer are much more plentiful, but moose are getting very scarce.

Ducks are as numerous as in past years.

Partridge are very scarce and I would recommend that there be no open season for these birds for at least two years. If there is not something done they will shortly disappear.

On examining a lot of the deer when brought out to be clipped I found many practically spoiled owing to the weather being so warm the first part of November.

I think it would be better to have the season longer so that the hunter would be able to get his deer in cooler weather.

I would recommend that all camp help for fishing and hunting parties have to take out guide's license as a lot of them go as camp help when they are actually guides which is not fair to the licensed guides and it is almost impossible to keep track of them all.

I would recommend that a higher price be charged for angling permits to tourists.

From Overseer John McArthur, of Ice Lake, for the Township of Allan.

Fishing was about the same as usual, pike and bass being quite plentiful.

Partridge, ducks and rabbits are not as numerous as last year.

Mink and muskrat show no signs of decrease.

Otter are scarce.

Deer are increasing every year.

From Overseer David Pyette, of Tehkummah, for Manitoulin Island.

Speckled trout are not nearly so plentiful as a few years ago, but tourists report bass fishing good.

Partridge and wild ducks are very scarce.

Small fur-bearing animals such as mink and muskrat are plentiful.

Red deer are becoming more plentiful each year in this district.

From Overseer J. Ramesbottom, of Little Current, for the District of Manitoulin.

I find that partridge are very scarce, and think a close season for two or three years would help to increase them.

Red deer and moose are very plentiful and seem to be getting more so.

Ducks are scarce in this locality, but that can be accounted for by the scarcity of suitable feed for them.

Beaver seem to be increasing.

Bass were not so plentiful this year as last and were hard to catch. They began biting in September more than in earlier months.

MIDDLESEX COUNTY.

From Overseer William Boler, of Lambeth, for River Thames, between London and boundary line between Townships Delaware and Westminster.

Black squirrels are slightly on the increase.

We have one small flock of quail here.

Several wild ducks have hatched here during the past summer.

Partridge are very scarce.

I would ask the Department to put a fee of \$2.00 per annum on persons not owning any land who prowl around to shoot at anything. This would help to pay off the war debt.

From Overseer J. D. Campbell, of Parkhill, for the River Aux Sauble and tributaries.

The coarse fish in Aux Sauble River were not up to the average as the season was late and some net fishermen complain of a poor catch.

Ducks are not as plentiful as in 1914.

Squirrels seem to be numerous.

Partridge are scarce.

I would once more recommend a small license for fish pedlars and that their wagons carry the same number as their license. It would be much easier to trace those that break the law.

From Overseer W. E. Collins, of Strathroy, for the Townships of Adelaide and Metcalfe.

The fishing in this district has been good, especially for pike and pickerel.

Black and grey squirrels have been plentiful.

There are not many quail or partridge.

Muskrats, mink, raccoon and fox are holding their own.

From Overseer Arthur Corsant, of London, for County Middlesex, east of boundary line between the Townships of Westminster and Delaware, London and Lobo.

Angling was very fair, mullets and suckers were quite plentiful.

Black bass are not very plentiful.

Muskrats, mink and coon are very scarce.

Rabbits are very plentiful.

Black and grey squirrels are on the increase, but I think every person carrying a gun should have a license, the fee to be \$2.00 per year and the number of squirrels for each day's shoot limited to ten, and their sale prohibited. My reason for such a recommendation is that I have seen farmers bringing as many as seventy squirrels at a time to the London market for sale, and if there isn't something done to stop it they will soon become extinct.

Partridge, quail and woodcock are almost birds of the past in my district.

From Overseer R. E. Jury, of London, for the City of London.

There were very good catches of pickerel and bass during the month of July. Since then the River Thames has been very high and not much fishing done, a good thing as there are lots of bass left for breeding. There were more coarse fish such as pike, mullet and suckers, caught this year than there has been for years. The people seemed delighted to get them.

Rabbits and black squirrels are very plentiful.

There are several bevy of quail in the neighborhood but partridge are scarce.

As to our fur-bearing animals such as muskrats and mink, they are on the increase. I see a great number of them as I go along the rivers.

I think putting the license on fur dealers was a step in the right direction and would recommend a gun license.

From Overseer Jas M. Temple, of Dorchester Station, for the Thames River easterly to boundary line between Oxford and Middlesex.

The fishing in this section is of but little account, as the game fish in the River Thames are bass, and they are very scarce. There seem to be more pike this year than last, but not what there used to be on account of there being no fish slides in Hunter's Dam, and the Waterworks Dam not being in proper repair.

Game is more plentiful than last year. There are a goodly number of partridge, but few woodcock.

Black squirrels are numerous, but in my opinion there should be a limit for black squirrels, say twenty a day would be a good bag.

No ducks except a stray flock occasionally.

Woodhare or cotton-tail rabbits are so very plentiful that they are becoming a nuisance to the farmers. I believe it would be advisable to extend the shooting

season for the woodhare till the first of April or else they will become a trouble to deal with.

Mink are scarce, but muskrats, I think, will be more plentiful than a year ago. Still there should be both a gun and a trapping license.

MUSKOKA DISTRICT.

From Overseer F. A. Hanes, of Huntsville, for the Townships of Stephenson, Stisted, Chaffey, Sinclair and Brunel.

Deer are more plentiful in and around this part than last year and reported so by parties living in different parts.

Partridge appear to be more plentiful but ducks are very scarce, are not more than two or three together and very wild.

Beaver are increasing very fast. They are in all the lakes and creeks.

Mink, muskrats and otter are scarce.

Fishing was not as good as last year but I think it was owing to the season being cold as there appear to be lots of bass, both large and small, in the lakes, and there were some good catches of both bass and speckled trout.

From Overseer William Robinson, of Kilworthy, for the Severn River and Sparrow Lake.

The fishing has been better this season than for some time.

Deer seem to be plentiful.

Beaver and otter are increasing fast. Every stream in my division has beaver.

Muskrat and mink are plentiful.

Ducks are less numerous than last season.

Partridge are quite plentiful.

I would like the Department to put a license on every one that carries a gun for it seems that young people cannot go out without a gun.

From Overseer William Smith, of Gravenhurst, for Lakes Muskoka, Rosseau and Joseph, in the Districts of Parry Sound and Muskoka.

I put in considerable time at South Falls and other places in the spring as the fish run up to these places to spawn till about June 15th, and if not watched there would be a big loss of these fish as they are taken often illegally.

There were not so many tourists on the lakes as in former years, still I sold more permits than last year. The fishing seemed to be good and compared favorably with other years, especially for trout and pickerel which were above normal.

I notice beaver are getting plentiful.

Mink and muskrat remain about the same.

Partridge are about what could be expected after a wet season.

There are not many deer in this district but hunters seem to get their amount.

From Overseer John A. Traves, Sr., of Fraserburg, for the District of Muskoka.

Last season I visited quite a number of hunter's camps in the four townships and found they have no complaints to make of scarcity of deer and partridge. The majority of the hunters got their deer and quite a number of partridge and rabbits. One party got sixty-two rabbits. The latter are very numerous. Beaver are also very thick and muskrats are plentiful, while mink are increasing. Wild ducks were plentiful last fall.

Fishing was fairly good in the spring in Bigwing Lake and some other lakes in our four townships. In the North Branch River there was good fishing for black bass and trout.

In my travels through the winter I saw several wolves' tracks and this summer about July there was a bunch about a mile from my home. A settler of ours heard them and killed two of them.

NORFOLK COUNTY.

From Overseer J. S. Smith, of Port Rowan, for the County of Norfolk.

The fishing both in the Inner Bay and Outer Bay has been about an average catch.

The prices for the different kinds of fish have been fair.

The wild duck are very plentiful in the marshes, but the shooting in the Bay has not been so good owing perhaps to the mild weather.

The plover, snipe and quail are very scarce.

The bass fishing was up to the average though not as many permits sold this year as other years.

The black squirrels and partridge are very numerous.

NIPISSING DISTRICT.

From Overseer Richard Conway, of Madawaska, for Townships of Airy, Murchison, Sabine and Lyell.

Game is scarce in the Townships Murchison, Lyell and Airy. Partridge are few and there are not many deer. In the Townships of Sproule and Clancy, north of here, deer and partridge are plentiful.

The kinds of fish we have here are speckled trout, gray trout, black bass, perch and mud pout, but the waters are rather poorly stocked.

From Overseer Joseph Rivet, of Sturgeon Falls, for that portion of the District of Nipissing lying west and north of the Townships of Widdifield, Merrick, Stewart and Osborne, exclusive of Lake Timiskaming and its tributaries.

The catch of bass and maskinonge has not been very good this year but sturgeon, pickerel and pike afforded good sport, in fact, much better than in previous years.

Muskrats abound in this region.

Ducks and partridge are very numerous.

NORTHUMBERLAND COUNTY.

From Overseer Thomas H. Cheer, of Brighton, for the waters of Lake Ontario fronting County of Northumberland, also inland waters tributary to said lake in said County.

The catch of trout has been very good, about the same as last year.

Whitefish have been very plentiful, the largest catch in years.

Coarse varieties were also caught in good quantities.

Ducks of all species were very plentiful here before the season opened the 15th of September, but in a few days they were very scarce.

Partridge are still very scarce here, but there were, I think, a few more than last year.

Black and grey squirrels continue to be scarce. I cannot see any difference from last season.

Muskrats are not very plentiful and are not likely to be until only spring trapping for them is allowed in order to protect their dens and houses. I think open season from the 15th day of March until the last day of April would help.

Mink are almost extinct in this vicinity.

Deer are reported to be fairly plentiful this season, which I think is owing to the limit of "One man one deer," which, in my opinion, is a good thing.

From Overseer H. W. Hayes, of Trenton, for the Bay of Quinte, as lies in front of the East Riding of Northumberland, for that portion of River Trent lying between the Townships of Sidney and the Bay of Quinte, and for the inland waters of the Townships of Murray, Dryden, Cramahe and Haldimand.

The fishermen report a good year for herring but very few trout. Coarse fish were fairly good.

Mink are very scarce. Very few muskrats were caught last fall as the price was low, consequently muskrats may increase.

Black ducks and teal are not so plentiful as last year and very few deep water ducks have shown up as yet. I would advise that the sale of ducks be prohibited.

Partridge hunters report that partridge were plentiful north, but they are very scarce here.

From Overseer J. H. Hess, of Hastings, for the Trent River and tributaries from Trent Bridge to Rice Lake.

The fishing at the beginning of the season was good and the quality above the average. Later in the season it was almost impossible to catch maskinonge, but I cannot account for it as there seem to be plenty of these fish in the waters.

Wild ducks are plentiful this season.

From Overseer W. H. Johnson, of Harwood, for Rice Lake in the Townships of Hamilton and Alnwick.

This has been an extra good year for spawn, and the little fish could get out in deep water before the water went down.

Very few tourists visited Rice Lake this year.

Fishing was good the first of the season and a lot of fine fish were caught. Later the fishing was not so good.

Black and wood duck are not so plentiful as last year, other species of duck are about the same.

Woodcock, quail and partridge are very scarce.

Black and gray squirrels are not very plentiful.

Cottontail rabbits are very numerous.

Mink are very scarce.

Muskrats are plentiful.

I beg to recommend that trappers pay a license and that persons owning and using gasoline launches for fishing and taking parties out to fish should pay a license fee of not less than ten dollars as I think it only fair to other guides.

From Overseer A. J. Kent, of Bewdley, for Rice Lake, from Ley's Point on the south shore of said lake around the head of lake of Barnard's Bay on the north shore of Rice Lake.

Bass and maskinonge were plentiful in the marshes and creeks last spring, and the close season was very well observed.

Fishing was not good during the summer, high winds and so much rain were the main causes. Tourists reported poor fishing in most of the lakes and rivers. It certainly was an off season.

A fair number of muskrats were caught last spring, but owing to the low water and the low prices for fur the rats had a good chance to increase for another year.

Quite a number of ducks this year. I think the duck season should open on the 15th of September, and that the line dividing the two districts should be changed.

Partridge are scarce. Black squirrel are plentiful, but automobile parties carrying guns before squirrel season are a source of annoyance, and something should be done to stop the squirrel shooting before the season opens. An overseer cannot cover very much ground in an afternoon, but an automobile party can take in a good many woods, and unless the overseer has some such conveyance he has no chance to catch them.

Partridge, black squirrel and rabbits should come in all together on the 15th of October, then no person would have any reason to carry a gun through the woods before the season opened.

From Overseer J. R. McAllister, of Gore's Landing, for Rice Lake, between Jubilee Point, and Lower Close's Point and the waters tributary thereto, in the Townships of Hamilton and Alnwick.

Muskrats were very plentiful last spring and there are more now than there were in the spring as they were not trapped too close.

Ducks are in the lake in great numbers just now, but not many of them have been killed.

Grouse are as numerous as usual.

Black and grey squirrels are plentiful.

Fishing in Rice Lake has been very poor indeed. Both bass and maskinonge were hard to catch except the first two weeks in October when there were a number of nice maskinonge taken. People who live around Gore's Landing say it is the high water that is the cause of poor fishing.

The fish are as plentiful in the marsh as usual in April and May when they are spawning so that there is apparently no decrease.

From Overseer F. H. Meneilly, of Warkworth, for the River Trent and tributaries from Percy Boom to Campbellford Bridge.

The fishing was good here this season and all kinds of fish seem to be increasing rapidly. When the Trent Canal is finished and the water is kept at a certain level they will, I believe, increase more so. All the fish caught here is by local fishermen as not many tourists come here.

Partridge are quite plentiful this year.

Black squirrels are very thick.

Rabbits are also increasing very fast and threaten in a few more years to be a pest.

From Overseer A. L. Reindeau, of Campbellford, for the Trent River and tributaries from Campbellford to Trent Bridge.

Maskinonge fishing was extra good in the first of the season but not as good in August.

Bass fishing was not very good. I would certainly recommend that the waters be stocked with bass as fishing for this species of fish is simply no good.

Ducks were not plentiful this season for some reason.

Black squirrels, rabbits and partridge are numerous.

From Overseer Amos Shearer, of Roseneath, for that portion of Rice Lake in the Townships of Hamilton and Alnwick, between Rock Island and Webb's Landing, with waters tributary thereto.

Fishing in Rice Lake has not been as good this year as in previous years. A lot of poaching was going on at the lower end of the Lake in the spring.

I would advise that the Lake be restocked with black bass.

Duck shooting has been poor.

Muskrat are quite plentiful but mink are scarce.

Partridge and black squirrel are quite numerous.

From Overseer D. C. Stuart, of Codrington, for Trent River and tributaries, from Chisholm's Rapids to Percy Boom.

All kinds of fish are plentiful and trout fishing has been extra good. A lot of trout were caught in Marsh Creek where there never was known to be trout until this year.

Partridge are plentiful and black squirrels have not been so numerous in years.

Ducks are about as usual.

The creeks and marshes are full of muskrats. I never saw as many rat houses as there are at the present time.

From Overseer W. H. Thompson, of Bailieboro, for the Otonabee River, from Bensfort Bridge to Rice Lake.

Fishing has been very poor this season, black bass not biting well.

Maskinonge had a spell of biting in August, and again about the last of October.

Ducks are about the same as last season.

Trapping was good last spring, and muskrats are very plentiful this fall, and they are very busy at the present time building their winter homes.

Partridge are not so plentiful as last season. Black squirrels are very scarce.

I would recommend a close season for frogs, as they are very scarce and should be protected during their spawning season.

ONTARIO COUNTY.

From Overseer Gilbert Gillespie, of Brechin, for Lake Simcoe and tributaries fronting Township of Mara.

The winter fishing for whitefish along this shore was not very good owing to too much slush under the ice. October fishing for salmon trout was very good and bass fishing was also very good, but the run small. The lake is full of whitefish.

Very few ducks were seen.

Partridge are plentiful.

Muskrats are numerous but mink are not to be seen, being very scarce.

From Overseer Charles Halward, of Cannington, for Beaver River, running through the Townships of Brock and Thorah, and the Villages of Sunderland and Cannington.

This has been a favourable year for game of all kinds, ducks were unusually plentiful, partridge and rabbits seem to be slightly increasing.

Mink and muskrats, owing to the low price of furs, are not being trapped as much as usual, and they show signs of being more plentiful.

From Overseer George Hood, of Scugog, for the Township of Reach, in the County of Ontario, and for the Township of Mariposa, in the County of Victoria, and over so much of the waters of Lake Scugog as lies in front of the said Townships, and for the westerly half of Scugog Island, and over the waters of Lake Scugog fronting thereon.

Maskinonge are very plentiful this season in Lake Scugog and bass are increasing.

Black ducks are very plentiful, also red heads and blue bills.

Partridge are on the increase.

Muskrats are plentiful and mink seem to be keeping up.

From Overseer Hector McDonald, of Beaverton, for Waters of Lake Simcoe and tributaries thereto fronting the Township of Thorah.

Whitefish and salmon are increasing in Lake Simcoe.

As the season was bad for bass fishing and tourists few, I think bass will have a chance to increase and be more plentiful for next season. As it was, I saw splendid specimens caught.

Ducks and geese seem to be as numerous as in former years.

Partridge are on the increase in this district.

Fur-bearing animals, mink and muskrats, are about the only kind in this territory. They seem to be as numerous as in former years.

From Overseer D. McPhee, of Uptergrove, for Lake Simcoe, fronting on Township of Mara and tributaries thereto, and for Mud Lake in the Townships of Mara and Carden.

In Lake Simcoe, trout, whitefish and herring have been plentiful, but carp have decreased. Bass are about the same as in former years, and maskinonge are plentiful.

In Mud Lake, pickerel, maskinonge and bass have afforded good fishing.

Ducks and partridge are more numerous than last year.

Muskrats keep up, but mink are scarce.

From Overseer Thomas Mansfield, of Pickering, for Electoral District of South Ontario, exclusive of the Township of Reach.

Fishing has been up to the average taking all things into consideration, and the fishermen were pleased at the Department's consideration in allowing them to fish in the usual close season to help out the rather hard times caused by the war, and also benefitting the consumers.

Ducks have not been as plentiful as usual, and in my opinion it was due to this fall being rather open. The ducks have not all come down yet and so far have come in smaller flocks.

From Overseer Michael Timlin, of Atherly, for Lake Couchiching and tributaries fronting Townships Mara and Rama.

The fishing has been very good here, and some good catches of lunge and pickerel have been reported.

Partridge and ducks are more plentiful.

Muskrat and mink are scarce.

PARRY SOUND DISTRICT.

From Overseer John G. Duncan, of Callander, for the Districts of Parry Sound and Nipissing.

Bass fishing was fine for a few weeks after the opening of the season, then there were very few who caught the limit allowed. This end of the lake was full of herring, and though there were lots of big bass they would not bite.

Partridge are very few. Some days in my travels I did not see any.

Ducks have been plentiful, quite a few around yet.

Plover left earlier this season.

Deer signs are that there will be a good season.

Musk rats are not so numerous in the creeks. They seem to be more around the lake.

From Overseer John Dunk, of Kearney, for the Townships of Perry, Bethune, Proudfoot and Armour.

The very favourable winter of 1914-15 has had a marked effect in the number of deer. I have no hesitation in saying that there is a great increase.

Beaver are everywhere throughout my territory. In some cases I have had to resort to the use of dynamite to blow out dams which were flooding several roads.

Mink and muskrats are exceedingly scarce, almost to the point of extinction. The high prices obtainable for these furs of late have led many to engage in trapping for them.

Partridge, owing to the extensive bush fires of 1914 and the unusually wet season of 1915, have not increased, and very few birds are seen in my district.

From Overseer John Floyd, of Nipissing, for Lake Nipissing, in the vicinity of Nipissing Village.

The fish in Lake Nipissing consists of bass, pickerel, whitefish, herring, maskinonge, sturgeon, pike and suckers. The fishing in Lake Nipissing has been very poor this season. For a short time in the first of the season the bass bit fairly well, but the trolling has been the poorest that I ever remember. I cannot account for such a bad season.

Moose has become very scarce.

Red deer are very numerous in some localities, but owing to fires and settling up the country they are gradually being driven into a more restricted area. Taking the country as a whole, the deer are decreasing all the time, the wolves being partly responsible but not altogether, as there are certainly a great number illegally killed. Owing to the difficulty of securing evidence in many cases where I know the law has been broken I have not taken action.

Partridge and ducks are very scarce here this year. I would recommend a close season for partridge for a couple of years.

Beaver and muskrats have increased wonderfully during the last two years.

Mink are fairly plentiful.

Otter, fisher and martin are scarce.

The lynx seem to have entirely disappeared from this country, though they were very plentiful here some few years ago.

From Overseer Richard Lambkins, of Loring, for the Townships of Harrison, Burton, McKenzie, Ferrie, Wallbridge, Brown, Wilson, Mills, Pringle, Gurd, Hims-worth, Nipissing, Patterson, Hardy, McConkey, Blair and Mowat.

Deer are still plentiful in the townships of my territory.

Partridge have held their own during the year.

From Overseer Henry W. Reid, of Parry Sound, for Townships of Shawanaga, Ferguson, Carling, McDougall, McKellar, Christie, Foley, Parry Island, Cowper and Conger.

The fishermen in this division inform me that they have had a good average season. The trout in the spring were very good, better than for many years, and they believe that it is the result of good work done by the hatcheries on the Georgian Bay. Some of them recommend that a hatchery should be established at Parry Sound, as plenty of spawn could be procured here to supply it.

The fall fishing has not been very good. Plenty of fish, but the weather conditions prevented the men from working. I do not think that the close season being taken off has been of much benefit to the fishermen on this shore, as owing to the low price it did not pay them to take the risk and they have stopped operations.

The bass fishing was not very good this season, but we did not have many tourists, no doubt owing to the war. There were a great number of the fishing clubs did not come at all. Pickerel fishing was very fair.

Mink and muskrat are reported plentiful.

A large number of hunters passed through here during the hunting season. Deer were plentiful and the hunters were well satisfied.

Partridge are getting very scarce in most parts of this district. In conversation with a lumberman, who spends nearly all the year in the woods, I asked him if he could account for the scarcity. He blames the foxes for it. During the cold nights the birds bury themselves in the snow and the fox comes along and eats them. He says he sees plenty of evidence of this every winter, and he believes that the foxes are just as bad on the birds as the wolves are on the deer.

PEEL COUNTY.

From Overseer John Bemrose, of Claude, for the Townships of Chinguacousy, Caledon, and Albion.

Last season was a very unusual one, it was so wet the speckled trout got lots of feed without taking the bait. Still anglers made fairly good catches.

Bass were very scarce.

Other fish such as suckers were plentiful in the spring.

Partridge have been very numerous this season, much more than I looked for after such a late and wet spring. I think we can thank the short open season for them.

Ducks have been plentiful; there was so much water laying about the farms a person could see them almost any day all summer.

Fur-bearing animals are getting very scarce, especially mink and muskrats. I think it would be well to stop the taking of them for about three years to give them a chance to increase.

Cottontail rabbits are numerous.

Black squirrel are increasing, but to save them, also the red ones, and all small birds, I would recommend making every boy under 18 years of age pay a license fee of two or three dollars before they could carry either a shotgun or rifle, as I find it is mostly young fellows that are killing off squirrels and small birds.

From Overseer W. H. Harrison, of Port Credit, for the waters of Lake Ontario fronting on the County of Peel, and for the Rivers Credit and Etobicoke tributary to the said lake.

The game laws have been well observed in this district, though the foreign element has given me trouble over their practice of shooting insectivorous birds.

After considerable warning they appear to have decided to observe the law. I would, however, suggest such a practice might be overcome by requiring anyone carrying a gun to take out a license.

Whitefish seem to have been scarce in this district, no doubt owing to the heavy current in the lake.

Salmon trout fishing has been fairly good.

Herring catches so far have been very good.

The angling has not been very good on account of the heavy rains making the water in the rivers muddy. Catches therefore have been very light.

Black squirrels seem to be plentiful.

Rabbits are also plentiful.

Partridge are very scarce.

Ducks are plentiful in the lake but seldom come inland.

PERTH COUNTY.

From Overseer Charles Jickling, of St. Mary's, for the County of Perth and for Townships East Nissouri and East and West Zorra, in County of Oxford.

Black and grey squirrel are more plentiful than they have been in many years.

Partridge are holding their own.

Ducks are flying in large numbers and quite frequently lighting on the small streams.

Mink and muskrats seem to be more plentiful owing to so little trapping having been done last winter.

I think something should be done to protect the raccoon, as there are so many killed before pelts are any good.

The pickerel planted in the lake at Lakeside are doing well. I went over to the lake in June and I caught two about 17 inches long.

The brown trout planted in Otter Creek are growing, but are much harder to catch. Some have been seen estimated to weigh $2\frac{1}{2}$ lbs.

Cottontail rabbits are very numerous. I hear reports that they are dying of some disease and quite often I see the dog carrying home one which apparently he had found dead.

PEEL COUNTY.

From Overseer James Johnston, of Orangeville, for the Townships of Caledon and Albion.

From reports the first of the fishing season was the best, the latter part not being so good on account of the continuous rainfall and high waters.

Partridge are plentiful and appear to be on the increase.

Mink and muskrat have decreased. I would strongly recommend for the protection of those fur-bearing animals to make every trapper take out a license.

PETERBORO COUNTY.

From Overseer Wm. Clarkson, of Lakehurst, for west half of Township of Smith, Township of Ennismore, west half of Township of Harvey, Townships of Galway and Cavendish.

Bass and maskinonge are holding out well. The fishermen are not complaining. Trout are also up to the average.

Deer are more plentiful than last year.

Ducks are scarce, but partridge are plentiful.

Mink are about the same as last year.

Muskrats and beaver are more plentiful.

From Overseer Edw. Fleming, of Hastings, for the Village of Hastings.

Angling and trolling did not afford as good sport as usual this year. Although I think that there were lots of maskinonge, they did not bite as usual. Bass were not so plentiful as in former seasons.

Ducks were fewer.

Muskrats plentiful last spring, but there should be a license for trapping.

Black squirrels are very plentiful this fall.

Partridge are very good, although I have seen them more plentiful. I do not think it would do any harm to give the partridge a close season for two years.

Cottontail rabbits are getting very thick here, and do a lot of harm to young trees.

From Overseer J. H. Forsyth, of Bridgenorth, for the waters of Chemong Lake and Lovesick Lake.

Maskinonge fishing was good this year. Bass fishing was not so good. Last spring was good for the spawn on account of the water being kept up until the spawn was hatched.

The close season for bass and maskinonge should be from the first day of December until the first day of June.

Rats seemed to be scarce last spring.

Partridge are not very numerous in this district.

Deer hunting is likely to be as brisk as ever, as reports are that deer are plentiful.

From Overseer Wellington Lean, of Apsley, for the Townships of Anstruther and Chandos.

Partridge are very scarce in this district this year, owing, I think, to so much wet weather early in the season, which would be bad for the young chickens.

Beavers are becoming very numerous, being found on almost all the lakes both large and small, as well as on the creeks in my district.

Fishing was about as good as usual.

Deer are quite numerous in some localities.

Wolves are not so numerous as in past years, but bears are more plentiful.

All other game about as usual.

From Overseer John McFarlane, of Keene, for Townships of Otonabee and Asphodel.

Fishing in this district was about the same as last year. At times maskinonge fishing was good and bass fishing fairly good. In fact the fishing would compare very well with other years.

There was a lot of mudcats taken out by angling in the spring and shipped, they did not appear to be so plentiful through the summer.

Suckers were very plentiful, also other small fish.

Brook trout fishing was about the same as last year, not very numerous. I think it would be well to protect the brook trout for about three years and not allow any to be taken. A number of people not living in this district do considerable fishing and keep them from increasing.

Black ducks were quite numerous this season. The fall ducks were late coming in and rafted in the middle of the lake and would not decoy very well. They appear to know decoys and shy away from them.

Muskrats were plentiful this spring, the trappers all had good catches, but the price was not so good this year.

The beaver are increasing and I don't think they are molested.

Mink are scarce.

Black squirrels are plentiful.

Rabbits are not as numerous this year.

Partridge are about the same as last year, very wild and hard to get. I think the skunks, which are plentiful, keep them from increasing, as they get them in the hatching season.

From Overseer Henry Melville, of Havelock, for the Townships of Belmont and Methuen.

Red deer seem much more plentiful than for some time past.

Moose have also been reported to have been seen in several localities.

Mink are reported practically extinct, and muskrat are scarce.

Otter and beaver are very scarce, so scarce that it is a rare thing for one to be seen on these waters.

Partridge seem to have decreased, while other land birds are reported to be about the same as last season.

Fish I think are more plentiful, but owing to the high water they have not been so easily taken.

I would strongly recommend that the hounding of the deer be discontinued in Belmont and Methuen Townships by an Order-in-Council, and that hounds be not allowed to run at large at any time to see what effect it would have on the increase of deer, also that a license should be required to carry a gun.

From Overseer F. J. Moore, of Lakefield, for the Townships of Douro, Dummer, east part of Smith, Township of Burleigh, and east half of Harvey.

Last spring was an exceptionally good season for bass and maskinonge spawning in the Kawartha Lakes, as the water was kept up, giving the spawn a chance to mature.

Fishing for bass and maskinonge has been very good this season with rod and spoon. I would again recommend that Stoney Lake be restocked with bass, as it is a great summer resort for tourists from all parts of the States as well as our own Province. There has not been as many tourists here this season as other seasons, owing to the war conditions I presume.

Regarding the matter of angling permits, I would recommend that the tourists pay a little more for them, providing the fish is kept up to the usual standard, as they seem very much taken up with these lakes.

Deer appear to be very plentiful this season.

Partridge are numerous, while ducks are not.

Muskrats are plentiful but mink are scarce.

Beaver are getting to be very plentiful, and there are quite a lot of otter signs.

From Overseer John Watt, of Peterboro, for that portion of the River Otonabee and tributaries between Lakefield and Bensfort Bridge.

Partridge are reported to be abundant.

The deer hunters last season were fairly successful, making about an average shoot.

Some good captures of maskinonge and bass were made at the first of the open season, but owing to so much rain and high water the catch fell off in the summer improving later.

For the same reason, namely, high water, the ducks have been able to keep away from the open water, feeding back in the ponds. At present they are rafting and in Rice Lake you can see them by the mile, but they keep far out.

In the spring while the fish are running a lot of game fish are destroyed by the practice of snagging or gaffing, and at present there is no law to prevent it. If a maskinonge or bass is gaffed while the officer is present the fisherman will of course release it saying he did not mean to as he was gaffing for suckers, but in many cases the fish die from the injury received, and if no one who would report happens to be present the fish is bagged. It would require a man on watch all the time, and there are several places with over twenty operating at the same time.

I would recommend some enactment to prevent this very destructive and unsportsmanlike custom. If in the definition of angling, the word decoy or bait, alive or artificial, was inserted, it would overcome the difficulty.

PRESCOTT COUNTY.

From Overseer F. Dupuis, of Hawkesbury, for the County of Prescott.

Fishing was about the same as last year. If the fish ladders at Carillon Dam were open it would enable the fish to get up the river.

Ducks are numerous but very wild.

Partridge are very scarce.

Muskrat and mink are in fair quantities.

PRINCE EDWARD COUNTY.

From Overseer Angus Brisbin, of Picton, for the waters of Lake Ontario, fronting Townships of North and South Marysburg, including all waters surrounding islands in said Townships, also Main Duck Islands, and that portion of Bay of Quinte fronting these Townships, as well as the waters of the Bay of Quinte, known as Picton Harbor, in Township Hallowell.

Gill net fishing has been as good as usual if not a little better, but the high winds in the latter part of September and October prevented the fishermen from getting to their nets when they should. There was a great increase in whitefish this year. The eels were about the same as last year, but the price was not so good.

Bass were also plentiful.

Partridge and black squirrels are also more plentiful.

Ducks have not appeared in their usual numbers, but I think it is on account of the warm weather.

From Overseer E. R. Fox, of Northport, for that portion of the Bay of Quinte fronting Township Ameliasburg east of Belleville Bridge, and also Township Sophiasburg, and over all the inland waters within Township Sophiasburg.

Bullheads are as plentiful as in any year since I have been overseer and pike are more plentiful this fall than usual.

The whitefish came quite early in October. About the 5th there were some caught. The seine started about the 25th and they have caught them in great numbers, one seine in one haul had 1,700 whitefish. The herring are also very plentiful.

Black duck are about the same as last year but the fall ducks are quite scarce.

Partridge are increasing.

Musk rats, by the looks of their houses, are increasing very much but mink are very scarce.

From Overseer Frank Huff, of West Lake, for the waters of Lake Ontario fronting the Townships of Hallowell and Athol, also for the Village of Wellington in the Townships of Hillier and for the inland lakes and streams in the said Townships of Hallowell and Athol.

Trout fishing has not been near as good as last season. Whitefish was much more plentiful.

Hoop net fishing in West Lake has been fair. There seems to be lots of sunfish and dogfish. Other fish scarce.

Ducks in the spring are very plentiful and feed close to the shores in great quantities, but in the fall they are hunted so very hard that they become scarce and are very wild.

Partridge are very scarce.

Cottontails and black squirrels are very plentiful.

From Overseer Jas E. Lane, of Wellington, for the waters of Lake Ontario fronting the Townships of Hallowell and Athol, also for the Village of Wellington, in the Township of Hillier and for the inland lakes and streams in the said Townships of Hallowell and Athol.

The fishermen report fishing for white fish the best for many years, while trout are not so plentiful. Hoop net fishing has been extra good, as much as a ton of dogfish and sunfish being taken from one set of hoop nets at one lift.

Carp are becoming quite a nuisance in West Lake.

Partridge are increasing.

Ducks were very plentiful last spring, at the time of writing are just beginning to come back.

Mink are very scarce. Muskrats are becoming more plentiful.

RAINY RIVER DISTRICT.

From Overseer E. L. Davis, of Fort Frances, for the District of Fort Frances. Moose and deer are a great deal more numerous than they were ten years ago. Caribou are very scarce.

As to partridge but few have been seen this last year.

All kinds of fish seem to be as plentiful as ever with the exception of sturgeon.

RENFREW COUNTY.

From Overseer Samuel Andrews, of Micksburg, for the Townships of Bromley, Stafford and Ross.

Bass, maskinonge, trout and pickerel are scarce and very few have been caught this season, while pike, suckers, mudpout and perch are plentiful.

Muskrat and mink are scarce.

Ducks and partridge are also scarce. Very few ducks have been shot this season. Owing, I think, to the high water in the marshes they keep out of reach of the hunters.

Deer are increasing in this district and are often seen in the settled parts of the county.

From Overseer W. L. Briscoe, of Killaloe Station, for Townships of Jones, Sherwood, Hagarty, Radcliffe, Brudenell, Raglan and Lynedoch.

Game generally has got more plentiful than in previous years notwithstanding the trouble caused by Indians who consider they are entitled to hunt when they like and where they like.

Moose have been roving through the districts as they are often seen.

Red deer are not as plentiful as they were in 1914.

If the wolves could be done away with the red deer would increase rapidly. There are numbers of them killed every winter by the wolves. I think that the bounty should be raised and it would induce people to hunt for them. The proper way is to trap them as they are easily trapped. Poison should not be used as the small animals, such as fisher and mink take the bait very readily.

Partridge are very scarce owing to so many being shot by partridge hunters coming in from the big town; also to fires destroying the young birds in 1914, as there were large bush fires.

Beaver are plentiful in this district. There are dams and beaver houses all through the country where there were no beaver for forty years previous to three years ago.

Muskrats are very scarce as the Indians have them all trapped and dug out of the banks of the rivers and creeks as they use the meat for food.

Angling in Golden Lake was not as good as last year owing to the high water.

From Overseer D. E. Burns, of Pembroke, for the waters between Allumette Rapids and Deux Joachim.

Owing to the late spring there was a poor catch of fish at the beginning of the season, but later on the fishermen claim to have been fairly successful.

Partridge are scarce in this district owing to the bush fires.

Beaver and red deer are still plentiful. I had considerable difficulty in protecting the deer this last season, as some of the hunters were not satisfied with one. I, therefore, prosecuted one party and hope it will have a good effect.

From Overseer John Devine, of Renfrew, for the Townships of Horton, McNab, Admaston, Bagot, Blythfield, Brougham, Griffith, and Matawatchesan.

Wolves are still numerous in the western end of this district where they have inflicted heavy loss on the settlers by killing sheep and other young stock. Besides they have been particularly severe on the deer. If possible something should be done towards their extermination.

The only fishing done was with hook and line, but on account of the high water the fishing was not good this season.

Partridge are scarce chiefly owing to last spring being wet and cold.

Beaver are getting numerous and building dams on quite a few small creeks. In very few cases will they cause any damage in the places they are frequenting.

From Overseer A. H. G. Wilson, of Eganville, for the Townships of South Algona, North Algona, Wilberforce, Grattan and Sebastopol.

The prospects for game at this end of the season are good in this section.

Partridge are not so plentiful as last year, and the only way I can account for this is that the open seasons are too long for the hunting of those birds. I believe that the season for partridge should only be two weeks, say from November first until the fifteenth. In this northern district the birds would be larger and there would be a larger increase. In late years there are too many young sports that like to be out in the woods with a gun, and ten birds a day are too many for any one person to kill and carry away to give to his friends or use himself.

Deer are plentiful all over the mountains about Lake Clear and South Algona, also in North Algona and along the Indian River.

Fur-bearing animals are getting scarce about this district but there are some still here about Indian River and the Bonnechere.

There are also some muskrats and also a few mink left, but they are not much sought after now as the prices for fur have been so low since last season.

RUSSELL COUNTY.

From Overseer J. B. Bourgon, of Rockland, for County of Russell.

About the same quantity of fish was caught in this part of the Ottawa River off the County of Russell during the season of 1915, and about the same number of licenses were issued. The quality of fish caught in this district is chiefly coarse fish, such as bull heads which do not appear to diminish.

As regards hoop nets a few licenses were issued but considerable fishing is done with such nets on the Quebec side of the Ottawa River, it is regrettable that some arrangements could not be made between the Ontario and Quebec authorities to limit the number of hoop nets in the Ottawa River where that river forms the inter-Provincial boundary.

As regard to game there is none in the County of Russell to make it worth any party getting out a license, the County of Russell is now so well settled that very little or no game remains.

SIMCOE COUNTY.

From Overseer John Beatty, of Old Fort, Midland, for the Townships of Tay and Matchedash.

Fishing in my territory has been very good. Bass, pike and maskinonge were as numerous as others. Very little illegal fishing was done in these waters.

Partridge and wild duck are very scarce. Mink also are scarce but muskrat plentiful.

Black squirrel are very plentiful.

The people of this district think it would be better for duck shooting to commence on September 15th instead of the 1st.

From Overseer Samuel Coulter, of Gilford, for Lake Simcoe, from the 10th Concession, Township of Innisfail; to the mouth of the Holland River.

Ducks are not very plentiful this fall. We have some partridge, about the same as usual, and some black squirrels, but rabbits seem to be more scarce. This is owing to the people in these villages keeping hounds and they are in the bush nearly all summer when they kill the young rabbits.

I have had a number of people complain about this. They think those hounds should not be let run through the swamps during the summer.

From Overseer B. A. Dusang, of Waubashene, for Township of Freeman, Gibson, Baxter, Wood and Morrison and Severn River.

Fishing was about the same as last season. It was a very rough season for net fishing outside.

Partridge are plentiful, also ducks.

Of fur-bearing animals mink are thick, but muskrats are scarce.

Beaver are very numerous in the small inland lakes.

Deer are increasing. In Matchedash there is a pretty large herd of them. The country north of Orillia is one of the finest preserves that you could locate in Ontario.

From Overseer Charles G. Gaudaur, of Atherley, for Lake Couchiching and the waters of Lake Simcoe as far as Uptergrove.

Our native ducks such as wood ducks, black ducks and grey ducks were scarcer than last year on account of so much construction work and blasting. Fall ducks have been plentiful.

Plover, snipe, woodcock and other shore birds and water fowl show a decrease compared to other years owing to the shores being occupied by summer cottages.

Partridge show a decided increase on account of favorable weather for young birds in this locality.

Fishing in this vicinity has been good. Whitefish during the winter were plentiful and the fishermen who bob for this species of fish report good catches.

Spearing for salmon trout during February and March showed a good average.

Spring trolling for salmon trout was good and some good catches were made at the "Deep Hole" and other places. Speckled trout or brook trout were above the average in the creeks and rivers in this locality.

Fly fishing for herring during June was the sport of the season as the natural fly could be caught and used for this species of fish.

Black bass were as plentiful as in past years and some good catches were reported.

Maskinonge in Lake Couchiching and Big Mud Lake were plentiful and the anglers enjoyed some fine sport.

Pickereel at Washago during the spring were numerous. Salmon trout during October were so plentiful that trollers enjoyed a profitable sport.

Rock bass, perch, sunfish, suckers, catfish and German carp were in abundance.

Fur-bearing animals such as mink, muskrats, etc., in this vicinity are as plentiful as in other years.

Hares are quite numerous in our vicinity and the local hunter always comes home with his hunting bag well filled.

I think night line license in Lake Simcoe should be dealt with very carefully as it gives the holder of the license an open chance to handle a net if he so wishes, and it does not give an overseer a chance if he sees him out on the Lake for he will always say he was looking at his night line. You would simply have to catch him red handed.

From Overseer G. G. Green, of Bradford, for the Holland River, on the north side in Township West Gwillimbury, westward to the forks of the River.

The fishing this year was very good, particularly with the bass and maskinonge, perhaps the best in years.

Game as usual is very scarce, duck I would say not more than 300 being on the marsh.

Snipe very few owing to the high water which has driven them either away or to the high ground.

Partridge are reported about as usual, but very few are ever killed here.

Rabbits on account of the high water will be scarce.

From Overseer J. H. Laughlin, of New Lowell, for the Townships of Notawasaga, Sunnidale and Flos.

I find the game increasing.

Deer are quite plentiful also partridge. I would recommend having the open season for partridge and rabbits cover the same period. Rabbits are not so plentiful as formerly.

The fish are getting scarce in this district. There are several good trout streams but they are fished out.

I have had several applications for trappers' licenses, and would recommend that all trappers be required to take out a license. Good trappers would approve of it and it would facilitate the work of the officers of the Department in protecting fur-bearing animals.

From Overseer Robert Leadley of Barrie, for the Township of Vespra and the Town of Barrie, and over so much of the waters of Kempenfeldt Bay as lies in front of the said Town and Township, also, that portion of Kempenfeldt Bay lying in front of the Township of Oro.

The most trouble I have had has been to stop dogs running deer as there are quite a number of deer in the north west portion of the Township of Vespra.

Muskrats are fairly plentiful and do not seem to be decreasing though the Indians trap through the Township every season.

Trout and whitefish have not been as plentiful in Kempenfeldt Bay this season as in other years.

From Overseer Harry Mayor, of Painswick, for Lake Simcoe, from Lovers' Creek, near Barrie on Kempenfeldt Bay, to concession 10 of the Township of Innisfil.

In the earlier months of the year when the Lake was frozen over large quantities of whitefish were caught through the ice by means of angling, and from information gained from the fishermen I understand there is no diminution in the quantity compared with former years, but I believe the supply could be greatly increased by the introduction of a larger species of whitefish as this Lake appears to be particularly adopted for them.

There has been about the usual number of trout taken this season but there seems to be no visible increase in their number. The very wise change in the close season for trout and whitefish for Lake Simcoe to an earlier date, although made too late to be of any benefit this year, I am sure if continued will have very beneficial result.

Bass are almost a thing of the past, unless some means be devised for their protection or young fry introduced into the Lake we might as well say good-bye to this game fish and sportsman's delight.

Herring are not so numerous in this division this year but as they frequently change their runs it does not follow that they are on the decrease as I believe there is an abundance of them in the Lake.

The coarser varieties of fish seem to be on the increase.

As regards to game am pleased to report a decided increase of partridge, hares, cotton-tail rabbits and black squirrel.

Of fur-bearing animals, there seems to be an increase of raccoon and fox, but mink are scarce.

From Overseer Samuel Patterson, of Schomberg, for the Holland River, known as the north and west branches in Townships Tecumseh and West Gwillimbury.

Pickrel and maskinonge were not as numerous as in 1914, but black bass and other small fish were more plentiful.

Partridge and wild ducks are seen in greater numbers.

Black squirrel are scarce.

From Overseer Thos. W. Robinson, of Collingwood, for the Townships of Collingwood and Osprey, County of Grey, and the Townships of Nottawasaga and Sunnidale, County of Simcoe.

Whitefish were more plentiful than the salmon trout, being very much the same as last season.

Sturgeon fishing was below the average of last year.

From Overseer Adolphus Woods, of Orillia, for the Townships of Orillia and Oro.

Bass fishing in Lake Couchiching and this end of Lake Simcoe has been very poor this season. There were hardly any caught during the summer, and at the Limestone, where it is generally extra good at this season of the year, it is not worth while going at all. The blasting at the canal, I think, is responsible for this.

There are lots of rock bass and smaller fish such as perch and sun fish. Maskinonge are on the increase here. There were more taken out of Lake Couchiching than in any previous year.

Salmon trout and whitefish are quite plentiful. Trolling for trout during the last two weeks has been very good, everybody seemed to be well satisfied with what they could catch, which I believe accounts for netting not being resorted to.

The tourist season this year was not very good. Visitors seem to think there should be something done towards re-stocking our lake with bass.

Hares are increasing rapidly.

Black duck were quite plentiful at the opening of the season, and there are quite a few partridge and fall duck.

Very few mink and muskrat in this district, and practically no other fur-bearing animals.

STORMONT COUNTY.

From Overseer W. A. Anderson, of Cornwall, for the Counties of Stormont and Glengarry.

The fishing was not as good as in former years.

Ducks are on the increase.

Partridge are numerous, also black squirrels.

From Overseer John Senecal, of Cornwall, for the Counties and waters fronting the Counties of Stormont and Glengarry.

There have been more tourists this year than last.

The fish were as abundant as last year, but were harder to catch on account of the water being muddy, due to the dredging carried on in the Massina River.

Ducks are increasing.

Bush game very scarce.

Fur-bearing animals are increasing.

THUNDER BAY DISTRICT.

From Overseer L. E. Bliss, of Nepigon, for the River Nepigon, Lake Nepigon, and waters tributary to the said river and lake.

Our tourist parties this season show a decided falling off, caused no doubt by the general unsettled condition brought about by the war. The tourists that were here were one and all well satisfied with the fishing, which was splendid this season; a larger number of big fish being caught than usual.

Moose are very plentiful in the Reserve, it being no uncommon sight when going up the river to see three or four in the water.

Deer are on the increase. Up until a few years ago there were no deer in this part of the district, but they are fairly plentiful now.

Pike fishing: The men employed at this work this season accomplished wonders, as large quantities of pike and suckers were caught and destroyed. It is most noticeable now after the two seasons of pike fishing, the comparative absence of pike in the shallow grassy bays, I would very strongly recommend that these men be placed at this work next season, as it is only by keeping right at it that we can hope to overcome this detriment to the trout.

Partridge this season are not very plentiful. The wet cold spring being too much for the young birds.

Duck are plentiful, Lake Nepigon being a splendid feeding ground for them.

From Overseer Fred Gammond, of Slate River, for Townships of Neebing, Paipoonge, Pardee, Crooks, Scobie, Blake, Pearson, Gillies, Marks, and Lybster.

I find that moose and red deer are becoming very scarce, and I would like to impress upon the Department the necessity of making some alterations in the Game Laws.

Firstly, the season opens too early and is too long, and with the extension of the open season for one month in 1914, and now also for 1915, I am afraid that it means the complete extermination of the noble game throughout these townships. This has been one of the best sections, also one of the most closely hunted in the whole district owing to their close proximity to the cities of Fort William and Port Arthur and very easy of access.

Partridge and rabbits are very scarce. I have seen only four partridge and three rabbits in a trip of about one hundred miles through the woods.

Beaver are very plentiful.

Muskrats are also on the increase.

Otter, mink, fisher, marten and lynx are very scarce, and I would recommend a close season of two or three years.

From Overseer Joseph York, of Gravel Lake, for the District of Fort William.

Moose and red deer are fairly plentiful.

Partridge and rabbits are very scarce, which, in my belief, is due to the numerous packs of brush wolves. The district is overrun by them. It has been reported to me that several carcasses have been found in the bush which have been killed by brush wolves. I would strongly recommend a bounty to be put on those animals, also that the partridge season should be closed for at least three years.

VICTORIA COUNTY.

From Overseer Wm. Adair, of Norland, for Townships of Laxton, Digby, and Somerville.

Maskinonge and bass fishing was not nearly so good as previous years, owing, I think, to the very rainy season and extremely high water. Trout fishing to the north was about the same as usual.

Beaver are very plentiful owing to the long protection given them. I would say, in fact, they are becoming a nuisance and a source of damage to farmers in this district.

Otter are still increasing, while muskrat and mink are getting scarce.

Partridge are scarcer than usual, which I think would also attribute to the wet season.

There are very few ducks in this district at any time.

Deer are reported as plentiful as ever.

From Overseer J. R. Boate, of Fowler's Corners, for the Township of Emily Angling was not as good as in 1914. The kinds of fish here are bass, maskinonge, perch, catfish, eels and sunfish.

Muskrats have been plentiful here this season, but mink are scarce.

Raccoon are more plentiful than in previous years.

Partridge more numerous than in past seasons.

From Overseer A. Bradshaw, of Lindsay, for the Townships of Mariposa and Ops.

The season of 1915 was much the same as the previous year regarding the quantity of fish and game taken in this section, with the exception that a great number of larger fish were caught at the opening of the angling season.

Bass and maskinonge are the principal game fish which are found in these waters. There is a great number of coarse fish also here, such as catfish, suckers, perch, sunfish and minnows, but with the exception of catfish the other species are only valuable as food for bass and maskinonge, although suckers are taken in spring by many who use them.

A large number of people come from the principal cities and towns of this Province, notably to Sturgeon and Seugog Lakes for the fishing season, and they are generally rewarded by good sport. This year there has been a larger number of such visitors here than usual.

The employment of special patrols resulted in the maskinonge and bass being allowed to deposit their ova in comparative safety. If the usual percentage reaches maturity it will lead to a marked increase in the number of these fine game fish.

The number of ducks was about the same as usual, though the high water during their brooding season flooded the rice beds and caused them to change their usual haunts considerably.

Partridge, plover and snipe were in goodly numbers this season.

Large numbers of mink and rats were caught by trappers in the trapping season but the prices of the skins were not as high as usual.

From Overseer C. Burtcheall, of Coboconk, for Balsam and Mud Turtle Lakes.
Game and fish are not very plentiful this season.

There were not as many good catches this summer as last. Maskinonge in particular were very scarce and the bass were much smaller.

Ducks are extra scarce around here, and partridge also. The latter were beginning to increase until the last two years, but they seem to be very scarce this fall.

Mink, otter, beaver and muskrat are all very scarce, it being a rare thing to see a mink at all. I think there should be a close season of a term of three or five years.

The deer are also very thin and scarce, and, as for moose, I don't think there are any near here.

From Overseer J. J. Irwin, of Sebright, for Township of Carden.

In the canal waters carp and suckers are the principal fish, but maskinonge are increasing.

Bradford Fishing Co. shipped about twenty-six ton of carp from the Lift Lock this season.

Mink are increasing, but muskrats are not.

Ducks are very plentiful in the vicinity of the canal.

On Mud Lake angling was good for maskinonge and pickerel. Those fish are improving. Bass are not so good.

Mink and otter are about the same as formerly, but muskrats have increased in the Mud Lake district. Frogs also are more numerous.

Ducks and partridge do not show any decrease.

Deer are about the same as last year.

From Overseer C. W. Parkin, of Valentia, for Townships of Mariposa and Ops.
Fishing was unusually good both for maskinonge and bass.

Nearly all winter the muskrat houses were covered with snow, which was a great protection, as poachers will not disturb them when there is a danger of being tracked. The nights were cold during the spring season, so the catches were not as large as usual.

Wild geese were seen in large numbers. As the ice did not leave the lake until April 17th, it afforded them protection.

Wild ducks are becoming more numerous every year. Except the wood duck, and they are almost extinct.

Partridge, mink and hares are on the increase.

From Overseer H. B. Parker, of Bobcaygeon, for the Township of Verulam, in the County of Victoria, and the Township of Harvey, in the County of Peterboro.

The spawning season for maskinonge and bass was very favorable, as the water was carefully handled by the different officials of the canals and waterways on this route, making it beneficial especially for the maskinonge to spawn.

The bass fishing was as good as in previous years, but maskinonge was not up to the mark. The only reason I can give is that the water in all the lakes of this district was kept high for the benefit of navigation.

The high water also drowned out the wild rice and thus ruined the feeding grounds of the different species of wild ducks, which made them very scarce this fall as they went to better feeding grounds.

The deer are very plentiful. There were not as many wolves last winter and less hunting in close season by poachers should make considerable difference.

Partridge show no signs of increasing.

Beaver are on the increase all through the north district.

Muskrat and mink are about the same as usual.

I would recommend that all trappers be licensed.

From Overseer Ira Toole, of Omemee, for the Township of Emily.

Trolling has not been nearly so good for maskinonge this year, owing, I think, to the water being very high all summer and the fish having miles of deep water instead of being confined pretty much to the channel of the river as in other years.

Bass fishing has been very good, but not many people fish for them here.

Muskrat are about as numerous as usual, holding their own pretty well, but I think it would give them a better chance if the season opened a month later, namely, January 1st.

Mink-continue to be very scarce.

Black duck were fewer on account of the wild rice beds being flooded out this year. The fall ducks seem to be coming in quite plentiful for so early in the season.

Partridge are not increasing, but rabbits, snipe, plover and other small game appear to be as plentiful as they have been in years past.

WATERLOO COUNTY.

From Overseer Louis Sattler, of Berlin, for the Township of Waterloo.

Fishing along the Grand River was not good owing to the high water, due to heavy rains. The pollution of the water by the sugar factory has abated.

Partridge are reported on the increase.

Mink continue scarce.

Cotton-tail rabbits are becoming quite a nuisance.

Numerous varieties of our song birds are reported to have been observed near Berlin. Farmers claim the blackbird should receive a measure of protection as they believe it assists in destroying the army worm.

Numerous complaints have been made over careless shooting by boys. Cases are reported where human life was endangered. Two cases were reported where cattle were killed.

I am strongly of the opinion that every man that carries a gun or rifle should be compelled to take out a license. A nominal fee could be charged by the Department. This would check indiscriminate shooting and the "Game-hawks" could be more easily handled.

From Overseer Edwin F. Scherer, of New Hamburg, for the Township of Wil-
mot.

Black bass were not caught as freely as last year, the water was too high in the river for good fishing.

Cotton-tail rabbits are very numerous, and it would be a benefit to the farmers if the season were open one month longer.

Mink are very scarce.

Muskrats are plentiful.

Black and grey squirrels have become scarce, but now that there is a close season for three years it will give them a good chance to increase.

WELLAND COUNTY.

From Overseer Geo. J. Briggs, of Bridgeburg, for the County of Welland.

Fishing in lower end of Lake Erie and Niagara River is reported by fishermen to be the poorest in thirty years. Black bass being caught, though those caught were of fair size.

Blue pickerel and perch are very scarce.

Squirrels and pheasants are plentiful.

From Overseer A. D. Brown, of Welland, for County of Welland.

The fishing this year has been exceptionally poor, both angling and dip nets.

Muskrats have been very scarce but are becoming more plentiful. I think the Department should not allow trapping in December, as they catch too many kittens.

Mink are very scarce.

Partridge are very scarce.

Of squirrels very few are to be seen.

Cotton-tail rabbits are quite plentiful.

Quite a few duck hatched out here this year.

Wild geese are quite plentiful in some seasons in the fall and open winters in the marsh south of here.

Plover: I have heard of none this fall.

English or Mongola pheasants are getting quite plentiful.

From Overseer H. G. A. Cook, of Niagara Falls, for County of Welland.

The quantity of fish in the Welland River, the Niagara River, and the several tributary streams is fairly plentiful, and the law generally observed. I have had several complaints, but after investigation I found that the parties who made the complaints would not testify to its correctness. The same thing applies to game, and I am of the opinion that the law is not violated in very many cases. I am doing everything in my power to protect the fish and game in this district.

From Overseer James Cryslar, of Port Colborne, for the Townships of Wainfleet and Cumberstone.

Grey squirrel in this district are plentiful.

Grouse are very scarce.

Quail are scarce.

Ducks of all kinds are plentiful.

Angling was very poor this year.

English pheasants are quite plentiful in this district.

WELLINGTON.

From Overseer Colin Robertson, of Hillsburg, for Townships of Erin and West Garafraxa.

The Caledon Mountain Trout Company still own or control a large portion of the waters here. Members of the company have had a good season, and quite a large number of beautiful brook trout have been caught and taken away by the members. The company also have a hatchery here and do quite a business along that line. I believe it is a success, as they hatch large quantities of young fry, some of which are sold, and the balance are placed in the creeks leading to their ponds.

The Guelph fishing club that control one of the ponds here also report a good season.

Mink, foxes and rabbits are plentiful.

Muskrat, partridge and wild ducks are scarce. There are not many otter, beaver or large game in this section.

WENTWORTH COUNTY.

From Overseer C. J. Kerr, of Hamilton, for County of Wentworth.

The catch of whitefish and trout by the fishermen in my district shows no increase, the take and catch being about the same as last year. During November they got all the herring they could handle.

All the fishermen complain about the farmers and fruit growers throwing the prunings and limbs and brush from their orchards and vineyards over the banks into the Lake. This gets swept out by the storms and damages and destroys a lot of nets. Something should be done to stop this.

The licensing of fish peddlers and fish dealers is another question that has come to my notice. I find that the municipality here charges a license to fish peddlers and storekeepers who sell fish, also those who sell fish in the Hamilton market. This should be controlled by your Department, and then we could keep out unprincipled fish peddlers and dealers who have no respect for the law, the same as we charge a license for game dealers.

There should also be a license for fur trappers. This is the wish of most of the trappers I know.

All aliens at least should pay a fee to carry a gun. I have had about a score of applications from Italians for gun licenses. They are all willing to pay a license fee. I hope something will be done on these lines this next year. I can easily collect \$100 by this means here.

I had the usual complaints of the duck shooters fighting among themselves during the shooting season, apparently there are too many shooters who shoot every day of the season and shoot for the market. Men like this should be counted as market gunners, not as sportsmen, and should be called upon to pay a reasonable license fee, and the decoy limit from shore should be placed at sixty yards. This

would equalize things up and the poor man who can only afford a few days shooting during the season would have a chance to get a duck and not be controlled by the screeners.

Ducks were plentiful, but duck shooters are increasing at the same time.

All other game appears fairly plentiful.

I am pleased to say that this fall the catch and take of herring never was better, also the size of the fish show a good increase. This is owing to the cutting out of the $2\frac{3}{8}$ mesh herring nets.

YORK COUNTY.

From Overseer Albert E. Tarry, of Toronto, for Townships of Etobicoke, York and Scarboro, and for the City of Toronto.

Fishing continues to be poor as regards salmon trout and whitefish. I cannot account for the scarcity of the fish in the lake. The fishermen report that the herring is a little better this fall.

Angling is a thing of the past. There are no fish to be caught by hook and line. All the waters where angling is done are over-run by carp.

All ducks are very scarce except cowene and sawbills.

There are no muskrats to be had as their grounds have been destroyed by the harbor reclamation work.

From Overseer Robt. Tillett, of Roach's Point, for the Township of North York.

The granting of spearing licenses was a good thing for the men that depend on fishing for a living, as they all report good catches.

Salmon are very plentiful, fishermen say they never saw them so thick as they were last winter. They can see the benefit of protecting the fish by a close season.

There was good trolling for maskinonge this summer, some very large ones being caught.

Bass were very plentiful around the islands and were larger than usual.

There are very few fur-bearing animals here.

Ducks, geese and partridge are very scarce and there are no woodcock here.

From Overseer Charles West, of Holland Landing, for Holland River in County of York.

I have every reason to believe that there has been a satisfactory increase in all kinds of game fish, especially black bass, which are becoming very numerous.

The duck shooting has been very poor so far this fall owing to the fine weather and the scarcity of feed, no rice growing here this year.

Partridge are quite numerous.

Black squirrels and rabbits are becoming more plentiful each year.

From Overseer G. W. West, of Holland Landing, for east bank of Holland River, through Township of Gwillimbury, and along the shore of Lake Simcoe, through Township of North Gwillimbury.

Maskinonge are on the increase and there has been good trolling.

Large and Small Mouth Black Bass also are increasing.

Other game fish are holding their own.

Game is quite scarce owing to the scarcity of feed and on account of the wet cold season.

Black squirrels are fairly plentiful.

Mink and muskrat are making a very good showing as far as I can see.

LIST OF GAME AND FISHERY WARDENS.

Name.	Residence.	District.
Burt, William	Simcoe	Niagara Peninsula
Chauvin, Victor	Windsor	South Western District
McDonald, Donald ...	Fort William	Rainy River and Thunder Bay Districts.
Metcalf, J. H.	Kingston	Eastern District.
Parks, G. M.	North Bay.....	Districts of Nipissing, Sudbury and Temiskaming.
Robinson, J. T.	Sault Ste. Marie ...	Districts of Algoma and Manitoulin.
Sterling, C. N.	Kenora	District of Kenora.
Willmott, J. H.	Beaumaris.....	Districts of Muskoka and Parry Sound.
Young, D. D. (Col.)..	Kingston	For the Province.

LIST OF OVERSEERS.

Name.	Residence.	District.
Adair, William	Norland	Townships of Laxton, Digby and Somerville, in the County of Victoria.
Anderson, W. A. ...	Cornwall	Counties of Stormont and Glengarry, with jurisdiction over so much of the River St. Lawrence as lies in front of said counties.
Andrews, Samuel ..	Micksburg ...	For the Tps. of Bromley, Stafford, and Ross, in the County of Renfrew, with joint jurisdiction over the Tp. of Westmeath.
Armstrong, H. C. ..	Glen Ross	The Trent River, from its mouth to Chisholm's Rapids, and tributaries thereto, and to Trenton Junction.
Avery, Melzar	Sharbot Lake	Township of Oso, with joint jurisdiction over the Township of Hinchinbrook, in the County of Frontenac.
Barr, George	Harrowsmith.	Tp. Portland, in Co. Frontenac, with joint jurisdiction over Desert and Knowlton Lakes.
Beatty, John	Old Fort Midland	With jurisdiction, with other overseers, over Tps. Tay and Matchedash, Co. Simcoe.
Bemrose, John	Claude	In and for the Townships of Chinguacousy, Caledon, and Albion, in the County of Peel.
Birch, W. J.	Delta	Upper and Lower Beverley lakes and rivers.
Bliss, L. E.	Nepigon	The River Nepigon, Lake Nepigon, and waters tributary to the said river and lake.
Blunden, H. A.	Sarnia	County Lambton, exclusive of Walpole and St. Ann's Islands.
Boate, J. R.	Fowler's Cors.	Tp. Emily, in Co. Victoria.
Boler, William	R. R. No. 2, Lambeth....	River Thames, between London and boundary line between Townships Delaware and Westminster, County of Middlesex.
Bonter, Robert	Marmora	Tp. of Marmora, County of Hastings.
Bourgon, J. B.	Rockland	County of Russell.
Boyd, J. H.	Merrickville .	Rideau River and tributaries, fronting on County of Grenville.
Boyd, W. M.	Kagawong ...	Kagawong Lake, with jurisdiction over North Channel, in vicinity of Kagawong Village.
Bradbury, J. R. ...	Blind River ..	District of Algoma.
Bradshaw, A.	Lindsay	Townships Mariposa and Ops. Co, Victoria.
Briggs, George	Bridgeburg ..	County of Welland.

LIST OF OVERSEERS.—*Continued.*

Name.	Residence.	District.
Brisbin, Angus	Picton	For the waters of Lake Ontario, fronting Tps. North and South Marysburg, including all waters surrounding islands in said townships, also Main Duck Islands, and that portion of Bay of Quinte fronting these townships, as well as the waters of the Bay of Quinte, known as Picton Harbor, in Tp. Hallowell.
Briscoe, W. L.	Killaloe Stn.,	Townships of Jones, Sherwood, Hagarty, Radcliffe, Brudenell, Raglan, and Lynedoch, Co. Renfrew.
Brown, Alex.	Welland	For the County of Welland.
Brown, R. M.	Milton	Townships of Nassagaweya and Esquesing in the County of Halton.
Burke, George	Perth	For the Town of Perth, Townships of North Elmsley, Drummond, North Burgess, and the first two concessions of the Township of Bathurst, County Lanark.
Burns, D. E.	Pembroke	The waters between Allumette Rapids and Deux Joachim.
Burtcheall, C.	Coboconk	Balsam and Mud Turtle Lakes, County Victoria.
Carson, R. W.	Peterboro' ...	Counties Simcoe, Ontario, Victoria, Peterboro', Durham, Northumberland, and York.
Cheer, T. H.	Brighton	For the waters of Lake Ontario, fronting Co. Northumberland, also inland waters tributary to said lake in said county.
Clark, Gordon	Westport	Township of North Crosby, in the County of Leeds, and with joint jurisdiction with any other overseer over Wolf Lake, in said Township, and the Township of Bedford, in County of Frontenac.
Clarkson, William ..	Lakehurst ...	West half of Township of Smith, Township of Ennismore, west half of Tp. Harvey, Tps. of Galway and Cavendish, Co. Peterboro'.
Collins, W. E.	Strathroy	Townships of Adelaide, Metcalfe, and with joint jurisdiction over Tp. Caradoc, Co. Middlesex.
Conway, Richard ...	Madawaska ...	Townships of Airy, Murchison, Sabine and Lyell, in the District of Nipissing.
Cook, H. G. A.	Niagara Falls.	County Welland.
Corsant, A.	Masonville ...	County Middlesex, east of boundary line between the Townships of Westminster and Delaware, London and Lobo.
Coulter, Samuel	Gilford	Lake Simcoe, from the 10th concession, Township Innisfall, to the mouth of the Holland River.

LIST OF OVERSEERS.—*Continued.*

Name.	Residence.	District.
Coultis, Chas. L. ...	Leamington ..	Tps. Malden, North and South Colchester, North and South Gosfield and Mersea, in the County of Essex, with jurisdiction over so much of the waters of Lake Erie as lie in front of the said Townships, but not for the Detroit River.
Covell, H. N.	Lombardy ...	Township South Elmsley, County Leeds.
Cox, Matthew	Howe Island ..	The waters of St. Lawrence River around Howe Island.
Crotty, John	Bothwell	River Thames, between Village of Wardsville and easterly limits of County of Kent, in County of Middlesex.
Crysler, James	Port Colborne ..	For the Townships of Wainfleet and Humberstone in the County of Welland.
Dafoe, P. W.	Napanee	Tp. Richmond, with joint jurisdiction over Tp. N. Fredericksburg, and for the waters known as Napanee River, fronting Tps. Richmond and N. Fredericksburg.
Davis, E. L.	Fort Frances.	For District of Fort Frances, County of Rainy River.
Davy, N. W.	Morrisburg ..	For the County of Dundas.
Deacon, John	Bolingbroke..	In and for the Townships of Bathurst and South Sherbrooke, in the County of Lanark, including Christy's Lake, and with joint jurisdiction over the Township of Bedford, in the County of Frontenac.
Devine, John	Renfrew	Townships, Horton, McNab, Admaston, Bagot, Blythfield, Brougham, Griffith, and Matawatchan, in the County of Renfrew.
Dine, C. W.	Kingston	For the City of Kingston and waters fronting the City of Kingston, in the County of Frontenac.
Donaldson, W. J. ..	Donaldson ...	Townships of Palmerston, Clarendon, Barrie, Miller, North Canonto, and South Canonto, electoral district of Addington.
Drew, Henry	Long Lake ...	Townships Olden and Kennebec, with joint jurisdiction over Hinchinbrooke.
Drouillard, Arsas ..	Walkerville ..	County of Essex.
Duff, R. A.	Sundridge ...	Province of Ontario.
Duncan, J. G.	Callender	Districts of Parry Sound and Nipissing, with jurisdiction on and over Lake Nipissing.
Dunk, Jno., Sr.	Kearney	Tps. Perry, Bethune, Proudfoot, and Armour, in District of Parry Sound, with jurisdiction over Parry Sound.
Dunnigan, Jerry ...	Castile	For the Township of Algona.

LIST OF OVERSEERS.—*Continued.*

Name.	Residence.	District.
Dupuis, Ferdinand .	Hawkesbury .	County of Prescott.
Dusang, B. A.	Waubauskene.	Tps. of Freeman, Gibson, Baxter, Wood and Morrison, in District of Muskoka, also over Severn River.
Edwards, Herbert .	Nairn Centre	Townships Merritt, Nairn, Lorne, Baldwin, Foster, and Goshen, in the District of Algoma, with joint jurisdiction with Overseers for Townships of Carlyle and Humboldt.
Elliott, Robt.	Port Hope ...	Tps. Hope and Cavan, in County Durham, with joint jurisdiction over County of Durham.
Fanning, Geo. H. ..	Sioux Lookout	For that portion of the Kenora District beginning at Quibell and east to the boundary line between the Districts of Kenora and Thunder Bay.
Featherstone, John	Renwick	Townships Romney, East Tilbury and Raleigh, in Co. Kent.
Findley, James	Richmond ...	For the Tp. of Goulburn, the westerly part of Nepean Tp., and that part of the Tp. of Marlborough adjacent to the Tp. of Goulburn.
Fitzsimon, Chas. ...	SaultSte.Marie	The Province of Ontario.
Fleming, E.	Hastings	Village of Hastings.
Fleming, John	Newboro'	Cos. Leeds, Frontenac, Lennox and Addington, Hastings, Prince Edward, Northumberland, Lanark, Carleton, Russel, Prescott, Glangarry, Stormont, Dundas and Grenville.
Floyd, John	Nipissing	For Lake Nipissing in the vicinity of Nipissing Village.
Forsyth, John	Bridgenorth ..	The waters of Chemong Lake and Lovesick Lake.
Fox, Eben R.	Northport ...	For that portion of the Bay of Quinte fronting Township Ameliasburg, east of Belleville Bridge, and also Township Sophiasburg, and over all the inland waters within Township Sophiasburg, and with joint jurisdiction, with any other overseer, over all inland waters in Township of Ameliasburg.
Fraser, J. A.	Prescott	St. Lawrence River, from the head of Cardinal Rapids west to Union Park.
Gates, George	Kingston	Rideau waters between Kingston Mills and Brewer's Mills, with joint jurisdiction over the Rideau waters between Kingston Mills and the River St. Lawrence.
Gaudaur, C. G.	Atherley	Lake Couchiching and the waters of Lake Simcoe as far as Uptergrove, with joint jurisdiction over Mud Lake, in the County of Ontario.

LIST OF OVERSEERS.—*Continued.*

Name.	Residence.	District.
Gault, T. G.	Deseronto....	Bay of Quinte, East Riding County of Hastings, and for Moira River and other waters in said riding.
Gillespie, G.	Brechin	Lake Simcoe and tributaries fronting Tp. Mara, in Co. Simcoe.
Gillespie, James ...	Berkeley	Electoral District of Centre Grey and for Township of Glenelg in South Grey.
Green, Adam	R.R. No. 2, Kinburn	Townships Huntley and Fitzroy, County Carleton.
Green, Geo. G.	Bradford	Holland River, on the north side in Township West Gwillimbury, westward to the forks of the river in County Simcoe.
Gurren, Geo. H. ...	Sandhurst ...	Townships of Ernestown and South Fredericksburg fronting Lake Ontario and the Bay of Quinte, but not Hay Bay, and with joint jurisdiction with any other Overseer or Overseers who have been or may hereafter be appointed over any of the townships fronting those waters in the County of Lennox.
Haggerty, John ...	Gilmour P.O. ...	Tps. Grimsthorpe and Cashel, in Co. Hastings, and with joint jurisdiction over Tps. Tudor, Lake, Wollaston, Limerick, Faraday, Dungannon, and Mayo, in said Co.
Hall, Andrew	Gore Bay ...	West end of Manitoulin Island, including the Tps. of Gordon and Mills, in the District of Manitoulin.
Halward, Chas.	Cannington ..	Beaver River, running through the Townships of Brock and Thorah, and the Village of Sunderland and Cannington, in the County of Ontario.
Hanes, F. A.	Huntsville ...	Townships Stephenson, Stisted, Chaffey, Sinclair, and Brunel, in District of Muskoka.
Harrison, W. H.	Port Credit ..	For the waters of Lake Ontario fronting on the County of Peel and for the Rivers Credit and Etobicoke, tributary to the said Lake.
Hayes, Henry	Murray	Bay of Quinte, as lies in front of the East Riding of Northumberland, for that portion of the River Trent lying between the Townships of Sidney and the Bay of Quinte, and for the inland waters of the Townships of Murray, Dryden, Cramahe and Haldimand.
Hembruff, Jos.	Manitowaning.	Lake Manitou, on Manitoulin Island, and the streams tributary thereto.
Henderson, H. A....	Pelee Island ..	For Pelee Island and the other islands in Lake Erie, south of the county of Essex.
Hess, James	Hastings	Trent River and tributaries in County Northumberland, from Trent Bridge to Rice Lake.

LIST OF OVERSEERS.—*Continued.*

Name.	Residence.	District.
Holliday, Henry ...	Wolfe Island..	Township of Wolfe Island and for the islands of Simcoe, Garden and Horseshoe, and any other islands comprised in the Township of Wolfe Island.
Hood, Geo., Sr.	Scugog.....	For the Township of Reach, in the County of Ontario, and for the Township of Mariposa, in the County of Victoria, and over so much of the waters of Lake Scugog as lies in front of the said townships, and for the westerly half of Scugog Island, and over the waters of Lake Scugog fronting thereon.
Hornsby, T. J.	Penetang	Tps. Matchedash, Tay, Medonte, Tiny, Flos, Sunnidale, and Nottawasaga, in the County of Simcoe, and over Christian, Bethwick, and Giant's Tomb Island.
Huff, Frank	West Lake ..	For the waters of Lake Ontario fronting the Townships of Hallowell and Athol, also for the Village of Wellington, in the Township of Hillier, and for the inland lakes and streams in the said Townships of Hallowell and Athol.
Huffman, E. M. ...	Napanee	Tps. N. Fredericksburg, Adolphustown, and S. Fredericksburg, fronting on Hay Bay and Bay of Quinte as far as Cole's Point, but not including the Napanee River, in the County of Lennox.
Irish, John E.	Vennachar ...	Tps. of Anglesea, Effingham, Ashley, Denbigh and Abinger, in the County of Addington.
Irwin, David	Little Current	In and for that portion of the District of Algoma lying east of the Village of Algoma Mills, and for Cockburn and Manitoulin Islands, and in and over the waters that lie in front of the said District and which surround the said islands, and with joint jurisdiction with any other overseer who has been or may hereafter be appointed.
Irwin, J. J.	Sebright	Township Carden, in County Victoria, with jurisdiction over Mud Lake, in County Victoria.
Jackson, W. W. ...	St. George ...	South Dumfries, lying south of the Grand River, in the County of Brant.
Jickling, Chas.	St. Paul's Stn..	County Perth and for Townships East Nissouri and East and West Zorra, in County Oxford.
Johnson, Henry ...	Brantford	That part of Grand River lying between the southerly boundary of Town of Galt and the boundary line between Tuscarora and Onondaga Townships in County Brant and the Townships of Seneca and Oneida in Haldimand County; also concurrent jurisdiction with Overseer Kern over tributaries to the Grand River in Burford, Oakland, and Brantford Townships west of Grand River.

LIST OF OVERSEERS.—*Continued.*

Name.	Residence.	District.
Johnston, James....	Orangeville ..	Townships of Caledon and Albion, in the County of Peel.
Johnston, Thos. H....	Royston	Townships of Lount, Machar, Laurier, Croft, Chapman, Strong, Jolly, Spence, Ryerson, Armour, Proudfoot, Monteith, McMurrich, Perry and Bethune, District of Parry Sound.
Johnston, W. H. ...	Harwood	Rice Lake, in the Townships of Hamilton and Alnwick, County Northumberland.
Jones, John	Fenelon Falls	For the north end of Sturgeon Lake, and Cameron Lake to Rosedale Locks, Burnt River and Rosedale River, in the County of Victoria.
Jury, R. E.	London	For the City of London, with joint jurisdiction over the County of Middlesex, with any other Overseer or Overseers who have been or may hereafter be appointed.
Kehoe, D.	Millarton	That portion of County Bruce lying south of Indian Reserve and Township of Amabel, with jurisdiction over Lake Huron in front of said county, south of Southampton.
Kennedy, J. A.	Tichborne	Eagle Lake, in the Townships of Hinchinbrooke and Bedford, and with joint jurisdiction over the Township of Bedford, in the County of Frontenac.
Kent, A. J.	Bewdley	Rice Lake, from Ley's Point on the south shore of said lake around the head of lake to Barnard's Bay on the north shore of Rice Lake.
Kent, Percy	Kentvale	For the whole of St. Joseph's Island.
Kern, Jacob	Burford	County of Brant, comprising Townships of Burford, Oakland and Brantford, west of Grand River, but exclusive of said river.
Kerr, C. J.	Hamilton	County of Wentworth.
Laframboise, Remi..	Canard River	Detroit River, fronting Townships of Sandwich, West Anderdon and Malden, and also Canadian islands in said river, County Essex.
Lake, Atchinson....	Inverary	Tp. Storrington, including Rideau waters from Brewer's Mills to south limit of the Township, with jurisdiction over all of Loughboro Lake and the Lakes in the Township of Storrington.
Lambkin, Richard...	Loring	Townships of Harrison, Burton, McKenzie, Ferrie, Wallbridge, Brown, Wilson, Mills, Pringle, Gurd, Himsworth, Nipissing, Patterson, Hardy, McConkey, Blair, and Mowat, in the District of Parry Sound.

LIST OF OVERSEERS.—*Continued.*

Name.	Residence.	District.
Lane, James E.	Wellington ...	For the waters of Lake Ontario fronting the Tps. of Hallowell and Athol, also for the Village of Wellington, in the Tp. of Hillier, and for the inland lakes and streams in the said Tps. of Hallowell and Athol.
Laughlin, J. H.	New Lowell ..	Townships of Nottawasaga, Sunnidale and Flos, in County Simcoe, with joint jurisdiction over the Township of Vespra in said county.
Leadley, Robt.	Barrie	For the Township of Vespra and the Town of Barrie, in the County of Simcoe, and over so much of the waters of Kempenfeldt Bay as lies in front of the said town and township; also, that portion of Kempenfeldt Bay lying in front of the Township of Oro.
Lean, Wellington ...	Apsley	Townships of Anstruther and Chandos, County of Peterboro.
Lee, James W.	Wellandport ..	In and for the Townships of Moulton, Sherbrooke and Wainfleet, in the Electoral District of Monck, with jurisdiction over so much of the waters of Lake Erie as lies in front of said townships.
Lewis, James	Sheguiandah..	North Channel of Lake Huron, from the Soo to the Bustards.
Little, Richard	Wallaceburg ..	County of Kent, fronting on Lake St. Clair, exclusive of Dover West Township, also Walpole and Ste. Anne's Islands, County Lambton.
Loucks, John.....	Dorset	For the Townships of Maclean, Ridout, Franklin and Brunel, in the District of Muskoka and Townships of McClintock, Livingstone, Sherbourne and Havelock, in the District of Haliburton (in the County of Muskoka.)
Loveday, E. T.	Ottawa	In and for the Townships of Nepean, Gloucester, North Gower and Osgoode, in the County of Carleton, with jurisdiction over so much of the River Ottawa and the River Rideau and the Rideau Canal as lies in front or within said Townships, and over the tributaries to the said rivers and canals.
McAllister, J. R. ...	Gore's Landing	Rice Lake, between Jubilee Point, and Lower Close's Point and the waters tributary thereto, in the Townships of Hamilton and Alnwick, County of Northumberland.
McArthur, John	Ice Lake	Tp. of Allan, in the District of Manitoulin.
McCaw, James	Bancroft	Townships Faraday, Dungannon and Herschell, in the County of Hastings.
McClennan, Kenneth.	Aylmer	Townships of Yarmouth, Malahide and Bayham, with jurisdiction over so much of the waters of Lake Erie as lies in front of the said township and the tributaries thereto.

LIST OF OVERSEERS.—*Continued.*

Name.	Residence.	District.
McDonald, Hector...	Beaverton ...	Waters of Lake Simcoe and tributaries thereto fronting the Tp. of Thorah, in the County of Ontario.
McFarlane, J. S.	Keene	Townships Otonabee and Asphodel, in Co. Peterboro, with jurisdiction over so much of Rice Lake as lies in front of said townships, and joint jurisdiction over said Lake.
McGowan, John	Tweed	For the Townships of Hungerford and Huntingdon, in the County of Hastings.
McGuire, J.	Jones Falls ..	Rideau River, fronting on the Township of South Crosby, County of Leeds, with jurisdiction as far as Kingston Mills, and also over Crippen Lake, in Leeds Township.
McKenny, Thos.	Thornbury ..	Co. Grey, exclusive of the Tps. of Proton, Egremont and Normanby, with jurisdiction over so much of the waters of the Georgian Bay as lies in front of said county.
McKibbin, H. A. ...	Port Arthur..	In and for the District of Thunder Bay.
McMurray, R.	Bayfield	County of Huron.
McPhee, D.	Uptergrove ..	Lake Simcoe, fronting on Township of Mara and the tributaries thereto, and for Mud Lake in the Townships of Mara and Carden.
McQuatt, Wm.	Macdonald's Corners ...	In and for the Townships of Dalhousie and North Sherbrooke.
McVittie, James	Blenheim.....	Townships Orford, Howard and Harwich, Co. Kent.
Major, William	Woodlawn....	Townships of March and Torbolton, County Carleton.
Mansfield, Thomas .	Pickering....	Electoral District of South Ontario, exclusive of the Township of Reach.
Marsh, Thomas	Collins Bay...	For the Township of Kingston in the County of Frontenac.
May, J. C.	St. Catharines	County of Lincoln and over so much of the waters of Lake Ontario as lies in front of the said county, and with jurisdiction over the Niagara River between its mouth and the Falls.
Maybee, Manly	Cameron P.O..	Sturgeon Lake, beginning at Day's Landing and running south for five miles, including McLaren's Creek, Sturgeon Point and Pleasant Point in Co. Victoria.
Mayor, Harry	Painswick....	Lake Simcoe, from Lovers' Creek, near Barrie, on Kempenfeldt Bay, to concession 10 of the Township of Innisfil.

LIST OF OVERSEERS.—*Continued.*

Name.	Residence.	District.
Melville, Henry	Havelock.....	Townships of Belmont and Bethuen, County Peterborough.
Meneilly, F. H.	Warkworth ..	River Trent and tributaries, in Co. Northumberland, from Percy Boom to Campbellford Bridge.
Moffatt, George	Glencross	Townships of Mulmur, Mono and East Garafraxa.
Moore, F. J.	Lakefield	Townships of Douro, Dummer, east part of Smith, Tp. of Burleigh and east half of Harvey, Co. Peterboro.'
Moore, James A. ...	Trenton	That portion of Co. Hastings fronting Bay of Quinte from City of Belleville west to the Trent River as far as Trenton Junction, with joint jurisdictions over the waters of the Bay of Quinte between bridge at Belleville and Murray Canal and also Weller's Bay.
Morton, John	St. Ola	Townships Limerick, Tudor, Wollaston, Cashel Lake and Grimsthorpe, County Hastings.
Muncer, W. G.	Minaki	For that portion of the Kenora District between Quibell and the boundary line between the Province of Ontario and the Province of Manitoba.
Myers, James	Holstein	Townships of Proton, Egremont and Normanby, County Grey, and Townships Minto, Arthur and West Luther, County Wellington.
Parker, H. B.	Bobcaygeon ..	In and for the Township of Verulam, in the County of Victoria and the Tp. of Harvey, in the County of Peterboro.'
Parkin, C. W.	Valentia	Townships Mariposa and Ops, County Victoria.
Patterson, Archibald.	Bothwell	For that portion of the River Thames lying between the Village of Louisville and the easterly limits of Kent County, with jurisdiction over any waters flowing into the Thames between the aforesaid limits, in the County of Ken.
Patterson, S.	Dunkerron ..	Holland River known as the north and west branches in Tps. Tecumseh, and West Gwillimbury, in Co. Simcoe.
Peltier, George	Dover South ..	River Thames from Lewisville to its mouth, also the tributaries of said river between these points; also the Township of Dover West, County Kent.
Pepper, Wm.	Lanark	Townships Drummond, Lanark, Darling, and Lavant, in Co. Lanark, with joint jurisdiction over waters in Tp. Drummond.

LIST OF OVERSEERS.—Continued.

Name	Residence.	District.
Phillips, J. H.....	Smith's Falls.	County Frontenac lying north of the Townships of Kingston and Pittsburg, the Townships of North and South Crosby, Bastard, South Elmsley and Kitley, County of Leeds, and the County of Lanark.
Pickell, S. G.	Oshawa	Co. Durham, with jurisdiction over so much of the waters of Lake Ontario as lies in front of said county.
Purcell, H. R.	Colebrook	Townships Camden and Sheffield, the County Addington.
Pyette, David	Tehkumah ...	Manitoulin Island, in Lake Huron.
Ramesbottom, John	Little Current	District of Manitoulin.
Reid, H. W.	Parry Sound .	Townships Shawanaga, Ferguson, Carling, McDougall, McKellar, Christie, Foley, Parry Island, Cowper, and Conger.
Rivet, Jos.	Sturgeon Falls	That portion of the District of Nipissing lying west and north of the Townships of Widdifield, Merrick, Stewart and Osborne, exclusive of Lake Timiskaming and its tributaries.
Robinson, T. W. ...	Collingwood .	Townships Collingwood and Osprey, County of Grey, and the Townships of Nottawasaga and Sunnidale, County of Simcoe.
Robinson, Wm.	Kilworthy ...	Severn River and Sparrow Lake.
Sargent, W. J.	Bronte	County of Halton.
Sattler, Louis	Berlin	For the Township of Waterloo.
Scherer, Edwin F..	New Hamburg.	Township of Wilmot, in the County of Waterloo.
Senecal, John	Stormont	The counties and waters fronting the Counties of Stormont and Glengarry in the Province of Ontario, and with joint jurisdiction with any other Overseer or Overseers in the County of Dundas, in the Province of Ontario.
Shappee, James.....	Sault Ste. Marie.....	For electoral district of Sault Ste. Marie
Shearer, Amos	Roseneath ...	That portion of Rice Lake in the Townships of Hamilton and Alnwick, between Rock Island and Webb's Landing, with waters tributary thereto.
Sills, Edward	Sydenham....	For all the Lakes of the Townships of Loughboro, with the exception of Loughboro Lake.
Small, John	Grand Valley.	Townships of Melancthon, Amaranth and East Luther, County Dufferin.
Smith, J. S.	Port Rowan ..	For the County of Norfolk.

LIST OF OVERSEERS.—*Continued.*

Name	Residence.	District.
Smith, William	Gravenhurst ..	Lakes Muskoka, Rosseau and Joseph, in the Districts of Parry Sound and Muskoka.
Spence, William ...	Athens.....	Charlestown Lake and its tributaries, County Leeds.
Stanzel, Fred.	Carleton Place.	Townships Beckwith, Drummond, Ramsay and Pakenham in County Lanark, and Townships Fitzroy, Huntley and Goulbourn in County Carleton, with joint jurisdiction over the waters of the Township Drummond with any other overseer.
Stead, R. J.	Wiarton.....	For that portion of the County of Bruce fronting on Georgian Bay and lying East and South of Tobermory Harbour, but exclusive of the said Harbour and extending South to the Town.
St. Charles, C.	Madoc	Townships Madoc and Huntingdon, County Hastings.
Stewart, Jas. H. ...	Brockville ...	Townships of Elizabethtown and the front of Escott and Yonge, in the County of Leeds.
Stuart, D.	Codrington ..	Trent River and tributaries, County of Northumberland, from Chisholm's Rapids to Percy Boom.
Tarry, A. E.	Toronto	Townships of Etobicoke, York and Scarboro, and for the City of Toronto, in the County of York, with jurisdiction over the inland waters of said townships, and also over Toronto and Ashbridge's Bays, and so much of the waters of Lake Ontario as lies in front of the County of York.
Taylor, Oliver	Niagara-on-the-Lake	Niagara River, between Niagara Falls and the mouth of the river.
Temple, Jas. M. ...	Dorchester Stn	Thames River, easterly to boundary line between Oxford and Middlesex, and joint jurisdiction over Oxford.
Thompson, W. H. ...	Baillieboro ...	The Otonabee River, from Bensfort Bridge to Rice Lake.
Tillett, R.	Roach's Point.	North York, with jurisdiction over Holland River and that portion of Lake Simcoe lying in front of North Gwillimbury and Georgina Townships.
Timlin, M.	Atherley	Lake Couchiching and tributaries fronting Townships Mara and Rama.
Toner, George	Gananoque ..	River St. Lawrence, from head of Howe Island to Union Park, and with joint jurisdiction with any other overseer or overseers over the Gananoque River from Gananoque to Marble Rock.

LIST OF OVERSEERS.—*Continued.*

Name	Residence.	District.
Toole, Ira	Omemee	Township of Emily, County of Victoria.
Townsend, J.	Lyndhurst....	Lyndhurst waters south of Lyndhurst; also South and Gananoque Lakes.
Traves, J. A., Sr. ..	Fraserburg ..	For the District of Muskoka, with joint jurisdiction with any Game and Fisheries overseers who have been or may be appointed over the District of Parry Sound.
Trelford, John	Southampton ..	That portion of the County of Bruce fronting on Lake Huron, and lying between the Town of Southampton and Tobermory Harbor, both inclusive.
Truelove, Wm.	Fermoy.....	The waters in the Tp. of Bedford, in County Frontenac.
Twamley, C.	Cavan	Townships Cavan and Manvers, Co. Durham.
Vokes, James	Nanticoke	For the Townships Walpole, Rainham, South Cayuga, and Dunn, in Co. Haldimand, and the waters of the Grand River, fronting the Townships of Oneida, Seneca, S. Cayuga, N. Cayuga, Canborough, and Dunn.
Watson, Hy.	Toronto	Province of Ontario.
Watson, J.	Cæsarea	Townships of Cartwright and Manvers, the waters of Lake Scugog, fronting on said townships and the waters tributary to said lake.
Watt, John	Peterboro	For that portion of the River Otonabee and tributaries between Lakefield and Bensfort Bridge.
West, Charles	Holland Ldg..	Joint jurisdiction along the east bank of the Holland River, through the Township of East Gwillimbury and along the shore of Lake Simcoe, through Township of North Gwillimbury, in the County of York.
West, Geo. W.	Holland Ldg..	With joint jurisdiction along east bank of Holland River, through Township of Gwillimbury, and along the shore of Lake Simcoe, through Township of North Gwillimbury, in the County of York.
White, J. M.	Walkerton....	For the Townships of Brant and Greenock, in the County of Bruce.
Wight, J. R.	Newboro	Rideau waters, between Chaffeys Lock and Newboro, including Indian Benson, Mosquito, Clear, Mud and Loon Lakes, and also the Upper Rideau, with jurisdiction over the inland lakes and streams between these two points in the vicinity of the Rideau waters.
Wilson, A. H. G. ...	Eganville	Townships S. Algona, N. Algona, Wilberforce, Grattan, and Sebastopol, in Co. Renfrew.

LIST OF OVERSEERS.—*Continued.*

Name	Residence.	District.
Wood, Adolphus.....	Orillia	In and for the Townships of Orillia and also in the County of Simcoe and over so much of Shingle and Carthew Bays and Lake Couchiching and Simcoe as lies in front of said Townships, with joint jurisdiction over the said Bays and Lake and over the River Severn, with any other Overseer.
Wootton, E. A.	Maynooth	Townships of Bangor, Wicklow and McClure, in County Hastings.
Wormworth, F. L. .	Arden	Townships Kennebec and Barrie, Co. Frontenac.
Young, William	Cloyne	Tps. of Kaladar and Barrie, in the County of Addington, and with joint jurisdiction over the Townships of Anglesea and Effingham.
York, Joseph.....	Gravel Lake..	For the District of Fort William.

STATEMENT of Revenue received from Game and Fisheries during the year ended
Oct. 31st, 1915.

GAME.	\$ c.	\$ c.
Trappers' Licenses	50 00	
Non-resident Licenses	5,800 00	
Resident Deer Licenses	27,250 08	
Resident Moose Licenses	8,345 00	
Game and Fur Dealers' Licenses	1,816 45	
Hotel and Restaurant Licenses	310 00	
Cold Storage Licenses	275 00	
Guides' Licenses	1,463 00	
Fines	5,647 65	
Sales	1,999 50	
Total Game		52,956 68

FISHERIES.

District.	Name of Overseer.	Amount.	Total.
		\$ c.	\$ c.
Kenora and Rainy River District	Davis, E. L.	1,096 00	
	Fanning, Geo. H.	15 70	
	Muncer, W. G.	378 25	
	Sterling, C. N.	2,665 00	
	Young, Col. D. D.	58 00	4,212 95
River Nepigon	Bliss, L. E.	957 00	957 00
Lake Superior	Armstrong, H. C.	13 50	
	Fitzsimmon, Chas.	90 00	
	McDonald, Donald	1,335 72	
	Robinson, J. T.	2,651 00	
	Wright, Samuel	4,831 40	8,921 62
Lake Huron (North Channel)	Boyd, Wm. M.	175 00	
	Bradbury, J. R.	3,086 00	
	Hall, A.	10 00	
	Hembruff, Jos.	84 00	
	Irwin, David	7,102 65	
	Ramesbottom, John	467 00	10,924 65
	Best, G. S.	12 00	
	Dusang, B. A.	466 00	
Georgian Bay	Ely, R. A.	401 33	
	Farnsworth, H.	8 00	
	Hornsby, Thos. H.	208 00	
	Jermyn, J. W.	283 00	
	Knight, Mrs. Chas.	44 00	
	Lamorandiere, P. R.	10 00	
	Lewis, Jas.	302 34	
	McKenny, Thos.	761 00	
	Oldfield, Miss E.	26 00	
	Robinson, Thos. W.	352 15	
	Reid, H. W.	1,529 00	
	Roderich, J. D.	6 00	
	Reid, C. R.	50 00	
	Watts, Murdoch.	610 00	
	Stead, J.	412 00	
	Wood, P. V.	146 00	5,626 82
	Carried forward .		30,643 04

STATEMENT of Revenue received—Continued.

District.	Name of Overseer.	Amount.	Total.
		\$ c.	\$ c.
	<i>Brought forward</i>	.....	30,643 04
Lake Huron (proper) and River St. Clair.	Blunden, H. A.	3,320 00	
	Karr, Richard.....	18 00	
	Kehoe, D.	228 00	
	McMurray, Robert.....	770 00	
	Trelford, John.....	1,580 00	
Lake St. Clair, River Thames and Detroit River.....	Campbell, J. D.....	18 00	5,916 00
	Chauvin, Victor	932 42	
	Crotty, John.....	13 00	
	Little, Richard.....	1,677 00	
	Laframboise, Remi.....	463 00	
	Patterson, H. A.....	52 00	
	Peltier, George.....	774 00	
Lake Erie, and Grand River and Niagara River	Briggs, George	1,671 50	3,929 42
	Brown, Alex.....	54 00	
	Buckley, Geo. E.....	132 00	
	Burt, Dr. Wm.....	285 00	
	Coultis, Chas. L.....	9,825 00	
	Crysler, Jas.....	18 00	
	Drouillard, A.	1,355 00	
	Eyers, Jacob	12 00	
	Featherstone, John.....	5,025 00	
	Greenwood, T. D.....	117 00	
	Henderson, H. A.....	3,242 00	
	Hutchinson, Jas.....	14 00	
	Johnson, Henry	10 00	
	Lee, J. W.....	1,245 00	
	McClennan, K.....	6,932 00	
	McVittie, Jas	4,625 00	
	Phemister, George.....	384 00	
	Prescott, W. B.....	32 00	
	Schliehauf, A	4,421 81	
	Smith, J. S.....	5,331 00	
	Vokes, Jas.....	4,490 00	
Lake Ontario and Bay of Quinte	Beatty, Samuel	10 00	49,271 31
	Beer, G. S.....	6 00	
	Brisbin, Angus.....	1,182 00	
	Cheer, Thos	383 00	
	Dafoe, P. W.....	223 00	
	Elliott, Robt.....	45 00	
	Fox, E. R.....	962 00	
	Gault, Thos	647 00	
	Grundy, W.....	30 00	
	Hayes, Henry	250 00	
	Higginbottom, F. V.....	140 00	
	Holliday, Henry.....	1,135 00	
	Huffman, E. M.....	1,072 00	
	Hunter, Capt. A.....	496 00	
	Huff, Frank	374 00	
	Kerr, C. J.....	555 00	
	Lane, Jas. E	678 00	
	May, J. C.....	602 00	
	Mansfield, Thos	37 00	
	Moffatt, W. J.....	142 00	
	Moore, J. A	208 00	
	Morgan, H. A.....	116 00	
	<i>Carried forward</i>	9,293 00	89,759 77

STATEMENT of Revenue received—Continued.

District.	Name of Overseer.	Amount.	Total.
		\$ c.	\$ c.
	<i>Brought forward .</i>	9,293 77	89,759 77
Lake Ontario and Bay of Quinte—Con.	McCallum, H.	74 00	
	Pickell, G. S.	18 00	
	Reeves, H. J.	164 00	
	Sargant, Wm.	501 00	
	Tarry, E. A.	314 00	
	Taylor, Oliver.	159 00	
	Titus, E. A.	220 00	
	Walker, R. J.	75 00	
	Watson, John.	8 00	
	Waddell, R.	100 20	
	Walker, A. R.	10 00	
	Woodruff, W. D.	140 00	
			11,076 20
Counties Addington, Carleton, Frontenac, Grenville, Lanark, Leeds, Lennox, Prescott, Renfrew and Russell	Avery, Melzar	90 00	
	Barr, George.	35 00	
	Birch, W. J.	69 00	
	Bourgon, J. B.	108 00	
	Briscoe, W. L.	7 00	
	Burke, Geo.	20 00	
	Burns, D. E.	12 00	
	Clark, Gordon	174 00	
	Clark, G. T.	14 00	
	Cox, Matthew	80 00	
	Covell, H. N.	2 00	
	Dupuis, F.	105 00	
	Dine, C. W.	398 40	
	Drew, Henry.	22 00	
	Duff, R. A.	2 00	
	Deacon, E.	49 00	
	Fleming, John	35 00	
	Gates, Geo.	230 00	
	Kennedy, J. A.	153 00	
	Lake, Atchinson	351 00	
	Loveday, E. T.	66 50	
	Marsh, Thos.	91 00	
	Mallett, W. H.	8 00	
	Montgomery, J. S.	8 00	
	McGuire, John	709 00	
	McLaughlin, J. H.	1 00	
	Phillips, J. H.	357 00	
	Purcell, H. R.	18 50	
	Sills, Edward	18 00	
	Smith, Wm.	210 00	
	Spence, Wm.	175 00	
	Stewart, J. H.	14 50	
	Townsend, Jas.	348 00	
	Truelove, Wm.	76 00	
	Toner, George	1,228 00	
	Trousdale, Thos.	13 00	
	Wight, J. R.	522 00	
	Wilson, A. G. H.	1 00	
	Wormwith, F. L.	15 00	
	Young, Wm.	2 00	
			5,837 90
Northumberland, Peterboro', Victoria and other inland Counties.....	Adair, Wm.	25 00	
	Barber, H. R.	2 50	
	Blea, D.	2 00	
	Bonter, Robt.	2 00	
	Boyd, J. H.	33 00	
	<i>Carried forward ..</i>	64 50	106,673 87

STATEMENT of Revenue received—Continued.

District.	Name of Overseer.	Amount.	Total.
		\$ c.	\$ c.
Northumberland, etc.—Continued.....	<i>Brought forward</i> .	64 50	106,673 87
	Bradshaw, A.	18 00	
	urtcheall, C.	56 00	
	Bennett, E. C.	30 00	
	Carson, R. W.	164 00	
	Clarkson, Wm.	284 00	
	Crump, C. J. C.	12 00	
	Dunk, John.	8 00	
	Dixon, John.	59 61	
	Edwards, Herbert.	4 00	
	Forsythe, J. H.	58 00	
	Fenton, M. H.	154 00	
	Fraser, Jas. A.	2 00	
	Gurren, Geo. H.	1,085 00	
	Goldie, W. D.	8 00	
	Green, R. J.	12 00	
	Gunther, W. F.	2 00	
	Haggerty, John.	30 00	
	Hanes, F. A.	58 00	
	Hess, Jas.	9 50	
	Irwin, J. J.	23 00	
	Jones, John.	106 00	
	Johnson, W. H.	44 00	
	Johnston, Thos.	48 00	
	Jackson, W. W.	25 00	
	Kearns, W. S.	826 00	
	Kellar, Rod.	54 00	
	Killen, Wm.	36 00	
	Kent, A. J.	6 00	
	Lambkin, R.	14 00	
	Lockman, E. W.	128 00	
	McFarlane, John.	11 00	
	McAllister, J. R.	74 00	
	Melville, Henry.	2 00	
	Moore, F. J.	402 00	
	Morton, J. W.	34 00	
	McCaw, Jas.	2 00	
	McGowan, J. W.	25 00	
	McMillan, A.	2 00	
	McMillan, J. C.	4 00	
	Parker, H. B.	372 00	
	Roach, H. W.	16 00	
	Riendeau, A. L.	20 00	
	Rice, M. A.	8 00	
	Sherer, Amos.	2 00	
	Stinson, F. S.	54 00	
	Smith, W. J.	4 00	
	Thompson, W. H.	27 00	
	Toole, Ira.	27 00	
	Watt, John.	60 00	
	Widdup, J. W.	20 00	
	Willmott, J. H.	106 00	
	Wootton, E. A.	14 00	
River St. Lawrence.....	Anderson, Wm.	10 00	4,714 61
	Senecal, John.	125 00	
	Stewart, Capt. Jas.	174 00	
Lakes Couchiching, Simcoe and Sparrow .	Coulter, Samuel.	148 00	309 00
	Gaudaur, C. C.	48 00	
	Gillespie, Gilbert.	8 00	
	<i>Carried forward</i> ..	204 00	111,697 48

STATEMENT of Revenue received.—Continued.

District.	Name of Overseer.	Amount.	Total.
	<i>Brought forward</i>	\$ c. 204 00	\$ c. 111,697 48
Lakes Couchiching, etc.—Continued.....	Green, Geo. G.	25 00	
	Leadley, Robert	22 00	
	McDonald, Hector	102 00	
	McPhee, Donald	36 00	
	McGinn, Wm.	25 00	
	Robinson, Wm.	266 00	
	Spencer, John	25 00	
	Timlin, M.	20 00	
	Tillett, Robert	201 50	
	West, G. W.	50 00	
	Wood, Adolph	16 00	
			992 50
Nipissing.....	Duncan, J. G.	10 00	
	Elder, W. A.	20 00	
	Hindson, C. E.	470 00	
	Kent, Percy	26 00	
	Myers, James	2 00	
	Parks, Geo. M.	501 00	
	Parliament, W. C.	30 00	
	Rivet, Jos.	12 00	
	Woods, Harry	220 00	
		1,291 00	
Rondeau Provincial Park		1,602 46	
Unclassified.....		223 35	
Total Fisheries		115,806 79	
Grand Total.....			\$168,763 47

WATERS STOCKED FROM 1901 TO 1915, WITH THE NUMBER AND KINDS OF
FISH PLANTED IN EACH.

1901.		
Waters stocked.	Species.	Number.
Muskoka Lake	Bass	1,205
Lake Rosseau	Bass	700
Lake Joseph	Bass	1,052
Fairy and Vernon Lakes	Bass	244
Lake of Bays	Bass	693
Thames River at Ingersoll	Bass	225
Thames River at Woodstock	Bass	225
Bear Creek at Strathroy	Bass	396
Thames River at Dorchester	Bass	696
Lake Couchiching	Bass	436
Stoney Lake	Bass	751
Lake Simcoe at Jackson's Point	Bass	603
Holland River	Bass	387
Golden Lake	Bass	372
Severn River	Bass	526
Grand River at Cayuga	Bass	400
Grand River at Brantford	Bass	274
Kempenfeldt Bay	Bass	300
		9,841

1902.		
Waters stocked.	Species.	Number.
Muskoka Lake	Bass	246
Lake Joseph	Bass	256
Lake Rosseau	Bass	227
Lake Couchiching	Bass	285
Bear Creek at Strathroy	Bass	395
Stoney Lake	Bass	330
Huntsville Lakes	Bass	265
Winnipeg River	Brook Trout	55
		2,059

1903.		
Waters stocked.	Species.	Number.
Bear Creek at Strathroy	Bass	926
Lake Rosseau	Bass	1,130
Lake Joseph	Bass	500
Muskoka Lake	Bass	1,002
Lake of Bays	Bass	371
Sparrow Lake	Bass	650
Lake Couchiching	Bass	258
Long Lake at Rat Portage	Bass	460
Golden Lake	Bass	100
Mink Lake	Bass	85
Clear Lake	Bass	85
White Lake	Bass	100
Lynn River at Lake Simcoe	Bass	355
Grand River at Brantford	Bass	425

WATERS STOCKED FROM 1901 TO 1915, WITH THE NUMBER AND KINDS OF
FISH PLANTED IN EACH.—Continued.

1903—Continued.

Waters stocked.	Species.	Number
Thames River at Ingersoll	Bass	75
Thames River at London	Bass	200
Thames River at St. Mary's	Bass	205
Grand River at Fergus	Bass	100
Grand River at Grand Valley	Bass	70
Grand River at Paris	Bass	130
Musselman's Lake	Bass	200
Lake of Bays	Bass	500
		7,927

1904.

Waters stocked.	Species.	Number.
Credit River	Bass	115
Lake Rosseau	Bass	380
Green Lake	Bass	135
Opinicon Forks	Bass	50
Lake near Barry's Bay	Bass	30
Barry's Bay	Bass	100
Gorman Lake	Bass	75
Golden Lake	Bass	565
Mink Lake	Bass	60
White Lake	Bass	160
Clear Lake	Bass	50
Snell's Lake	Bass	100
Lake Joseph	Bass	725
Bass Lake	Bass	200
Lake Couchiching	Bass	230
Lake Joseph	Bass	415
Lake of Bays	Bass	530
Lake Simcoe at Jackson's Point	Bass	785
Beaver River at Cannington	Bass	250
Balsam Lake	Bass	400
Lake of Bays	Bass Fingerlings	5,000
Oxbow River at Komoka	Bass Fingerlings	1,200
Lake Scugog	Bass Fingerlings	1,400
		12,955

1905.

Waters stocked.	Species.	Number.
Lake Scugog	Bass	400
Stoney Lake	Bass	600
Muskoka Lake	Bass	500
Thames River at Stratford	Bass	250
Thames River at Mitchell	Bass	350
Lake Couchiching	Bass	500
Gull Lake (near Gravenhurst)	Bass	100
Lake of Bays	Bass	400
		3,100

WATERS STOCKED FROM 1901 TO 1915, WITH THE NUMBER AND KINDS OF
FISH PLANTED IN EACH.—Continued.

1906.

Waters stocked	Species	Number.
Lake Simcoe	Bass	450
Lake of Bays	Bass	700
Gull River	Bass	610
Grand River	Bass	575
Lake Scugog	Bass	400
Muskoka Lake	Bass	700
River Nith	Bass	600
Lake Simcoe	Bass	700
Lake Simcoe	Bass	700
		5,435

1908.

Waters stocked.	Species.	Number.
Sparrow Lake	Bass	500
Haliburton Lake	Bass	520
Puslinch Lake	Bass	725
River vicinity Kenora	Trout, Speckled, fry	2,000
		3,745

1909.

Waters stocked.	Species.	Number.
Mohawk Lake	Bass Fingerlings	1,000
Lake Rosseau	Bass Fingerlings	1,500
Lake Muskoka	Bass Fingerlings	1,500
Lake Joseph	Bass Fingerlings	2,000
Lake of Bays	Bass Fingerlings	2,000
Stoney Lake	Bass Fingerlings	3,500
Gull Lake	Bass Fingerlings	200
Whiteman's Creek	Bass Fingerlings	200
Cooley's Pond	Bass Fingerlings	150
Sparrow Lake	Bass Fingerlings	2,500
		14,550

1910.

Waters stocked.	Species.	Number.
Rideau waters (near Merrickville)	Bass Fingerlings	3,000
Lake Rosseau	Bass Fingerlings	3,000
Lake Joseph	Bass Fingerlings	3,000
Lake Muskoka	Bass Fingerlings	4,000
Gull Lake	Bass Fingerlings	100
Sturgeon Lake	Bass Fingerlings	4,000
Cameron Lake	Bass Fingerlings	3,000
Pigeon Lake	Bass Fingerlings	3,000
Fairy Lake and vicinity of Huntsville	Bass Fingerlings	8,500
Victoria Lake	Bass Fingerlings	2,000
Grand River (at Brantford)	Bass Fingerlings	300
Clear Lake	Bass Fingerlings	2,000
Long Lake (vicinity of Utterson)	Bass Fingerlings	1,725
Grand River (at Brantford)	Parent Bass	50
Oakland Pond	Parent Bass	25
Total Bass Fingerlings		37,625
Total Parent Bass		75
Grand Total		37,700

WATERS STOCKED FROM 1901 TO 1915, WITH THE NUMBER AND KINDS OF
FISH PLANTED IN EACH.—Continued.

1911.

Waters stocked.	Species.	Number.
Lake of Bays	Bass Fingerlings	12,000
Lake Rosseau	Bass Fingerlings	20,000
Lake Joseph	Bass Fingerlings	20,000
Wagner Lake	Bass Fingerlings	2,500
Gull Lake	Bass Fingerlings	3,000
Fairy Lake	Bass Fingerlings	5,000
Peninsula Lake	Bass Fingerlings	5,000
Maitland River at Brussels	Bass Fingerlings	2,000
Stoney Lake and Big Cedar Lake	Bass Fingerlings	10,000
Sand Lake	Bass Fingerlings	3,000
Trout Lake	Bass Fingerlings	7,000
Grand River at Brantford	Bass Fingerlings	500
Oakland Pond	Bass Fingerlings	200
		<hr/> 90,200

1912

Waters Stocked and Location.	Species.	Number.
Muskoka Lake in Muskoka District	Bass Fingerlings	12,000
Rosseau Lake " "	" "	11,000
Gull Lake " "	" "	4,000
Joseph Lake " "	" "	10,000
Vernon Lake " "	" "	2,500
Fairy Lake " "	" "	2,500
Mary Lake " "	" "	2,500
Peninsula Lake " "	" "	2,500
Cache Lake in Algonquin Park	" "	10,000
Sturgeon Lake in Kawartha District	" "	4,000
Balsam Lake " "	" "	3,000
Cameron Lake " "	" "	2,000
Loughboro and Collins Lakes in Frontenac County ..	" "	2,000
Long Lake on Timiskaming & Northern Ontario Ry.	" "	2,000
Kenogami Lake " " " "	" "	5,000
Sesekinika Lake " " " "	" "	5,000
Grand River	Parent Bass	300
Belle and Ewart Lakes in Grey County	Trout (Speckled)	20,000
Streams in Norfolk County	" "	50,000
	Total Bass Fingerlings	<hr/> 80,000
	" Parent Bass	300
	" Trout (Speckled)	70,000
	Grand Total	<hr/> 150,300

WATERS STOCKED FROM 1901 TO 1915, WITH THE NUMBER AND KINDS OF
FISH PLANTED IN EACH.—Continued.

1913.

Waters Stocked and Location.	Species.	Number.
Fox Lake in Kenora District	Bass Fingerlings.....	15,000
Muskoka Lake in District of Muskoka.....	" "	10,000
Joseph Lake " "	" "	8,000
Rosseau Lake " "	" "	7,000
Gull Lake " "	" "	5,000
Windy Lake in Sudbury District	" "	5,000
Rumsey Lake in Sudbury District	" "	5,000
Horse Shoe or Pah-She-Gong-Ga Lake in Parry Sound District	" "	5,000
Trout Lake on the Timiskaming & Northern Ontario Railway	" "	5,000
Moose Lake " " "	" "	5,000
Rib Lake " " "	" "	5,000
Scugog Lake in the Kawartha District	" "	5,000
Charleston Lake in Leeds County	" "	5,000
Grand River in the vicinity of Breslau.....	" "	5,000
Grand River in the vicinity of Brantford.....	" "	400
Streams in the vicinity of King, York County.....	Parent Bass	200
Rib Lake on the Timiskaming & Northern Ontario Railway	" "	25
Gull Lake in Muskoka District	" "	20
Muskoka Lake in Muskoka District	" "	20
Sharbot Lake in Frontenac County	" Pickerel	100
Clear Lake in Frontenac County	" "	50
Speed River in vicinity of Hespeler	Trout (Brown).....	1,000
Streams in the vicinity of Simcoe, Norfolk County..	" "	1,000
Streams in the vicinity of St. Paul's, Perth County..	" "	1,000
Bell and Ewart Lakes in Grey County.....	" (Speckled)	30,000
Utterson Lakes in Muskoka District.....	" "	20,000
Squires Creek, in the vicinity of Spring Brook, in Hastings County	" "	20,000
Streams in the vicinity of Simcoe, Norfolk County..	" "	10,000
Total Bass Fingerlings.....		90,400
" Parent Bass		265
" " Pickerel ..		150
" Trout (Brown)...		3,000
" " (Speckled)		80,000
Grand Total		173,815

1914

Waters Stocked and Location.	Species.	Number.
Boyse Lake, District of Nipissing	Advance Bass Fry.....	15,000
Net Lake, " "	" "	10,000
Rib Lake, " "	" "	10,000
Waters in the vicinity of Thornbury, Grey County..	" "	6,000
Pigeon Lake, Peterboro' County	" "	25,000
Sturgeon Lake, Victoria County	" "	25,000
Wilno Lake, Renfrew County	" "	25,000
Round Lake, " "	" "	15,000
Perrigo Lake, " "	" "	5,000
Goose Lake, " "	" "	5,000
Golden Lake, " "	" "	22,500
Kohaheshemagabog Lake, District of Muskoka	" "	14,000

WATERS STOCKED FROM 1901 TO 1915, WITH THE NUMBER AND KINDS OF
FISH PLANTED IN EACH.—Continued.

1914.—Continued

Waters Stocked and Location.	Species.	Number.
McKay's Lake, District of Muskoka	Advance Bass Fry.....	12,000
Muskoka River, " "	" "	4,000
Skeleton Lake, " "	" "	12,000
Bass Lake, Hastings County	Bass Fingerlings.....	30,000
Beaver Lake, Lennox County	" "	14,000
White Lake, " "	" "	6,000
Lime Lake, " "	" "	20,000
Gannous Narrows, Peterboro' County	" "	10,000
Stoney Lake, " "	" "	10,000
Clear Lake, " "	" "	10,000
Round Lake, " "	" "	5,000
Grand River at Paris, Brant County	" "	5,000
Victoria Lake, Stratford, Perth County	" "	10,000
Waters in the vicinity of Mitchell, Perth County ..	" "	5,000
Scugog Lake, West Durham County	" "	10,000
Round Lake, Peterboro' County	" "	1,000
Denbigh Lake, Addington County	" "	1,000
Rideau River, Grenville County	" "	10,000
Long Lake, Frontenac County	" "	4,000
Thirteen and Thirty Island Lakes, Frontenac County.	" "	4,000
Chain Lakes, Renfrew County	" "	1,000
Cache Lake, Algonquin Park	" "	30,000
Rainy Lake, District of Parry Sound	" "	4,000
Fish Lake, " "	" "	2,000
Sand Lake, " "	" "	2,000
Grand River, Galt, Waterloo County	" "	8,000
Grand River, Berlin, "	" "	8,000
Saugeen River, Bruce County	" "	15,000
Lake of Bays, District of Muskoka	" "	10,000
Moose Lake, District of Nipissing	" "	3,000
Boyse Lake, " "	" "	6,000
Rib Lake, " "	" "	4,000
Long Lake, " "	" "	10,000
Kenogami Lake, District of Temiskaming	" "	10,000
Sesesekenika Lake, " "	" "	5,000
Snell's Lake, Brampton, Peel County	" "	1,500
Waters in the vicinity of Woodstock, Oxford County.	Parent Bass.....	225
Victoria Lake, Stratford, Perth County	" "	21
Grand River, Brantford, Brant County	" "	84
Whiteman's Creeks, Waterloo County	Trout (Brown).....	800
Waters in the vicinity of Simcoe, Norfolk County..	" "	1,500
Bell and Ewart Lakes, Grey County	" (Brook).....	30,000
Streams in the vicinity of Simcoe, Norfolk County..	" "	15,000
Beaver River, Meaford, Grey County	" "	15,000
Streams in the vicinity of Havelock, Peterboro' Co'ty.	" "	25,000
Streams in the vicinity of Berlin, Waterloo County.	" "	10,000
Streams in the vicinity of Bethany, E. Durham Co'ty.	" "	21,000
	Total Advance Bass Fry.	205,500
	" Bass Fingerlings..	274,500
	" Parent Bass.....	330
	" Trout (Brown).....	2,300
	" " (Brook).....	116,000
	Grant Total.....	598,630

WATERS STOCKED FROM 1901 TO 1915, WITH THE NUMBER AND KINDS OF
FISH PLANTED IN EACH.—Continued.

1915.

Waters Stocked and Location.	Species.	Number.
Rideau River, Grenville County	Advance Bass Fry.....	50,000
Gull Lake, Muskoka District	Bass Fingerlings.....	125,000
Gloucester Pool, " "	" "	10,000
Koshe Lake, " "	" "	15,000
Lake of Bays and Fifteen and Sixteen Mile Lakes, Muskoka District	" "	125,000
Penninsular Lake, Muskoka District	" "	50,000
Trout Lake, Nipissing District	" "	50,000
Temagami Lake, " "	" "	75,000
Long Lake, Frontenac County	" "	15,000
Eagle Lake, " "	" "	15,000
Sharbot Lake, " "	" "	30,000
Mississippi Lake, Lennox County	" "	60,000
Rideau River, Grenville County	" "	30,000
Waters in vicinity of King, York County	" "	10,000
Fox Lake, Kenora District	" "	100,000
Loon Lake, Thunder Bay District	" "	10,000
Trent River, Northumberland County	" "	60,000
Shanty Creek, Waterloo County	Trout Fingerlings.....	10,000
Gingericks Creek, " "	" "	10,000
Weavers Creek, " "	" "	10,000
Webber Creek, " "	" "	10,000
Waters in vicinity of Berlin, Waterloo County	" "	15,000
Waters in vicinity of Tilsonburg, Oxford County ..	" "	12,000
Bell and Ewart Lakes, Grey County	" "	20,000
Waters in vicinity of Penetang, Simcoe County	" "	20,000
Waters in vicinity of Mount Forest, Wellington C'ty.	" "	30,000
Waters in vicinity of Dundas, Wentworth County..	" "	25,000
Beaver River, Meaford, Grey County	" "	10,000
Streams in vicinity of Norwood, Peterboro' County.	" "	20,000
Streams in vicinity of Havelock, Peterboro' County.	" "	30,000
Eagle Creek, Frontenac County	" "	30,000
Sharbot Lake, " "	" "	40,000
Grand River, Brant County	Parent Bass.....	175
Trent River, Northumberland County	" "	250
Speed River, Hespeler, Waterloo County	Trout Brown.....	25,000
Lake of Bays, Muskoka District	" Lake.....	100,000
Manakie Waters, Kenora District	" "	60,000
Temagami Lake, Nipissing District	" "	100,000
Rideau Lakes, Grenville and Lanark Counties	" "	100,000
Temiskaming Lake, Temiskaming District	" "	100,000
Patterson's Creek, Norfolk County	" Brook.....	10,000
Kent's Creek, " "	" "	15,000
Barbers Creek, Paris, Brant County	" "	5,000
Bell and Ewart Lakes, Grey County	" "	60,000
Total Advance Bass Fry		50,000
" Bass Fingerlings.		780,000
" Trout Fingerlings.		292,000
" Parent Bass		425
" Trout (Brown)....		25,000
" " (Lake).....		460,000
" " (Brook).....		90,000
Grand Total.....		1,697,425

Statement showing the number of fry distributed in the waters of the Province by the Federal Government from Dominion hatcheries.

Years.	Newcastle.	Sandwich.	Ottawa.	Wiarton.	Sarnia.	Total.
868-73.....	1,070,000	.....	.....	.....	.....	1,070,000
874.....	350,000	.....	.....	.....	.....	350,000
875.....	650,000	.....	.....	.....	.....	650,000
876.....	700,000	8,000,000	.....	.....	.....	8,700,000
877.....	1,300,000	8,000,000	.....	.....	.....	9,300,000
878.....	2,605,000	20,000,000	.....	.....	.....	22,605,000
879.....	2,602,700	12,000,000	.....	.....	.....	14,603,700
880.....	1,923,000	13,500,000	.....	.....	.....	15,423,000
881.....	3,300,000	16,000,000	.....	.....	.....	19,300,000
882.....	4,841,000	44,000,000	.....	.....	.....	48,841,000
883.....	6,053,000	72,000,000	.....	.....	.....	78,053,000
884.....	8,800,000	37,000,000	.....	.....	.....	45,800,000
885.....	5,700,000	68,000,000	.....	.....	.....	73,700,000
886.....	6,451,000	57,000,000	.....	.....	.....	63,451,000
887.....	5,130,000	56,500,000	.....	.....	.....	61,630,000
888.....	8,076,000	56,000,000	.....	.....	.....	64,076,000
889.....	5,846,500	21,000,000	.....	.....	.....	26,846,500
890.....	7,736,000	52,000,000	5,732,000	.....	.....	65,468,000
891.....	7,807,500	75,000,000	7,043,000	.....	.....	89,850,500
892.....	4,823,500	44,500,000	4,909,000	.....	.....	54,232,500
893.....	9,835,000	68,000,000	6,208,000	.....	.....	84,043,000
894.....	6,000,000	47,000,000	4,480,000	.....	.....	57,480,000
895.....	6,000,000	73,000,000	3,210,000	.....	.....	82,210,000
896.....	5,200,000	61,000,000	3,950,000	.....	.....	70,150,000
897.....	4,200,000	72,000,000	4,100,000	.....	.....	80,300,000
898.....	4,325,000	71,000,000	3,020,000	.....	.....	78,345,000
899.....	4,050,000	73,000,000	3,700,000	.....	.....	80,750,000
900.....	5,175,000	90,000,000	3,450,000	.....	.....	98,625,000
901.....	5,900,000	67,000,000	3,410,000	.....	.....	76,310,000
902.....	650,000	100,000,000	1,245,000	.....	.....	101,895,000
903.....	2,500,000	90,000,000	1,201,000	.....	.....	93,701,000
904.....	1,475,000	75,000,000	877,000	.....	.....	77,352,000
905.....	1,480,000	106,000,000	1,103,000	.....	.....	108,583,000
906.....	1,550,000	88,000,000	1,123,000	.....	.....	90,673,000
907.....	1,807,000	103,000,000	1,152,000	.....	.....	105,959,000
908.....	2,600,000	79,000,000	2,010,000	4,955,000	51,000,000	139,565,000
909.....	1,881,000	66,500,000	1,575,000	8,100,000	159,500,000	237,556,000
910.....	1,520,400	76,000,000	1,478,000	12,088,000	74,000,000	165,086,400
911.....	1,543,816	77,000,000	.....	12,249,500	113,500,000	204,293,316
912.....	1,599,716	29,000,000	.....	12,399,900	77,000,000	119,999,616
913.....	2,207,500	59,000,000	.....	8,556,800	94,000,000	.....
914.....	.....	65,000,000	.....	6,796,000	120,000,000	.....
Total....	517,264,632	2,296,000,000	64,976,000	65,145,200	689,000,000	.....

Years.	Collingwood.	Thurlow.	Port Arthur.	Southampton	Kenora.	Total
913.....	50,000,000	.....	32,112,950	6,957,000	.....	252,834,250
914.....	46,800,000	46,500,000	32,482,700	2,372,000	71,370,000	391,320,700
Total...*	96,000,000	46,500,000	64,595,650	9,329,000	71,370,000	.....

Grand Total.. 3,560,980,482

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1914, in the Public

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Kenora and Rainy River.</i>			\$			\$			\$			\$
1	Lake of the Woods	4	37	11,100	8	23	8,650	52	5	335	10	32,000	5,435
2	Lac Seul, Upper and Lower Mani- tou, Pelican Lake, High Lake, Gibbey Lake, Hilley Lake, Ele- phant Lake.....	1	.....	1,500	3	3	725	6	8	875	17	20,000	2,885
3	Isbister Shoal, Wabigoon, Orang Outang, Canyon, Eagle and Big Sea Lakes.....					3	950	8	4	330	8	14,000	1,465
4	Star, Indian, Crow, Minnitakie, Abraham, Big Vermillion, Sandy and One Man's Lakes.....					5	1,600	10	9	620	19	24,000	2,445
5	Rainy Lake.....	3	12	1,100	6	10	2,675	20	9	570	9	24,800	2,165
6	Namaken, Eva, White Otter, Lit- tle Tuttle Lakes.....	1	10	1,250		1	180	2	.....	.....		4,800	691
7	Clearwater, Steep Rock, Elbow Lakes.....					4	1,000	7	1	100	1	8,000	1,120
	Totals.....	9	59	14,950	19	49	15,780	105	36	2,830	64	127,600	16,206

Return of the kinds, quantities and values of fish caught during the

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
	<i>Kenora and Rainy River.</i>	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Lake of the Woods				437,450		30,196	313,260	420,622
2	Lac Seul, Upper and Lower Manitou, Pelican Lake, High Lake, Gibbey Lake, Hilley Lake, Elephant Lake				40,192		24,566	16,332	53,518
3	Isbister, Shoal, Wabigoon, Orang Outang, Canyon, Eagle and Big See Lakes				282,170		44,750	149,250	125,885
4	Star, Indian, Crow, Minnitakie, Abraham, Big Vermillion, Sandy and One Man's Lakes				122,552		34,952	109,244	117,110
5	Rainy Lake				80,322		99	166,820	182,242
6	Namaken, Eva, White Otter, Little Tuttle Lakes				17,405		8,600	2,998	19,141
7	Clearwater, Steep Rock, Elbow Lakes			150	14,950		18,550	2,650	4,450
	Totals			150	995,041		161,713	760,554	922,968
	Values			\$ c. 1,500 00	\$ c. 99,504 10	\$ c. 16,171 30	\$ c. 60,844 32	\$ c. 92,296 80	

FISHERIES.

Quantity and value of all fishing materials and other fixtures employed in the fishing waters of Kenora and Rainy River District.

Fishing material.												Other fixtures used in fishing.			
Seines.		Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
	\$		\$		\$		\$		\$		\$		\$		\$
		28	9,350	14	2,075							4	6,700	4	1,450
														1	200
		8	2,175									9	1,550	4	.75
												1	200		
												2	300	1	100
		36	11,525	14	2,075							16	8,750	11	2,325

Year 1914, in the Public Waters of Kenora and Rainy River Districts.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
72,000		500	83,370	66,280	120,730	53,501	1,441	93½	141,603 95
						2,595			13,263 91
			2,281			1,720			57,443 36
					4,000	17,610			37,161 42
7,098			40,967			79,549	244		47,356 07
16,706			515	140		6,885			7,646 69
						2,000			5,607 00
95,804		500	127,133	66,420	124,730	163,860	1,685	93½	310,082 40
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,370 60	25 00	7,627 98	5,313 60	2,494 60	8,193 00	1,685 00	56 10.		310,082 40

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1914,

Number.	District.	Fishing Material.											
		Tugs.				Gasolene Launches			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men	No.	Value.	Men.	Yards.	Value.
	<i>Lake Superior.</i>			\$		\$							\$
1	Thunder Bay and Thunder Cape..	1	28	5,000	8	1	250	1	3	185	6	12,320	940
2	Rosport.....	4	39	20,000	17				3	650	4	145,400	6,250
3	Pigeon River, Jackfish, Port Coldwell, Black Bay, Simpson's Island, Trout Lake, Arrow Lake	6	92	14,800	19				5	360	9	154,000	9,090
4	Nepigon Bay, Nepigon Straits, Dog Lake, Swede Island, Stur- geon Bay, Moffat's Straits.....	3	26	2,900	9				6	420	10	121,500	2,680
5	Bay's Plat, Burnt Harbour, Steel River, Pie Island.....	1	2	2,500	2				3	145	4	11,000	650
6	Lake Nepigon.....								2	65	3	1,350	77
7	Gros Cap.....								12	630	23	43,000	1,470
8	Persian Island.....					1	600	3	3	200	4	21,000	1,415
9	Batchawana Bay.....								11	1,500	22	38,500	2,405
10	Goulais Bay.....								11	1,245	22	45,000	1,700
11	Gargantau.....	1	23	5,000	9				2	450	4	14,000	3,400
12	Richardson's Harbour.....	1	48	7,500	10							60,000	3,000
13	Michipicoten Island.....	2	44	9,500	14	3	1,500	7	6	215	8	140,500	7,060
14	Mamaine Point.....					1	500	3	3	390	7	23,000	1,875
15	Sandy Island.....												
16	Harmony Bay.....									150	2	4,500	150
17	Garrett's Harbour.....								1	100	2	6,000	270
18	Indian Harbour.....								1	500	2	5,000	150
19	Lizzard Reserve.....								5	1,490	10	23,500	2,250
	Totals.....	19	302	67,200	88	6	2,850	14	78	8,695	142	869,570	44,832

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickered, or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake Superior.</i>								
1	Thunder Bay and Thunder Cape.....	...	364,580	300	16,300	3	27,400	1,600	14,500
2	Rosport.....	1,325	244,000	...	19,500	223	244,800	100	1,300
3	Pigeon River, Jackfish, Port Coldwell, Black Bay, Simpson's Island, Trout Lake, Arrow Lake	580	16,000	...	45,604	253	248,400	12,602	31,570
4	Nepigon Bay, Nepigon Straits, Dog Lake, Swede Island, Stur- geon Bay, Moffat's Straits.....	...	146,000	...	27,405	...	137,000	2,200	200
5	Bay's Plat, Burnt Harbour, Steel River, Pie Island.....	...	...	...	17,073	...	36,800	...	81,045
6	Lake Nepigon.....	...	...	...	3,000	...	1,200	...	...
7	Gros Cap.....	...	11,000	...	26,923	11	34,228	...	...
8	Persian Island.....	...	...	...	13,226	...	16,250	...	...
9	Batchawana Bay.....	...	...	...	30,950	5	26,590	4,000	200
10	Goulais Bay.....	10	355	...	37,700	...	32,500	...	...
11	Gargantau.....	...	...	...	13,033	18	68,698	42,210	...
12	Richardson's Harbour.....	...	...	...	20,582	36	112,085	67,995	...
13	Michipicoten Island.....	...	...	6	37,017	953	231,428	70,380	...
14	Mamainse Point.....	...	...	...	11,295	193	111,646	...	51
15	Sandy Island.....	...	...	...	9,331	...	3,151	...	391
16	Harmony Bay.....	...	...	...	2,000	...	1,000	200	50
17	Garrett's Harbour.....	...	...	...	250	...	6,172	...	...
18	Indian Harbour.....	...	...	...	3,000	...	3,500	...	...
19	Lizzard Reserve.....	...	...	7	3,375	26	95,994	...	...
	Totals.....	1,915	781,935	313	337,564	690	1,438,842	201,287	129,307
	Values.....	\$ 19,150 00	\$ 39,096 75	\$ 3,130 00	\$ 33,756 40	\$ 6,900 00	\$ 143,884 20	\$ 16,102 96	\$ 12,930 70

FISHERIES.

The quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake Superior

Fishing Material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
				\$										\$		\$
			6	900												
			12	2,650									7	5,400		
			11	2,030									2	1,200	2	350
			5	800									1	100		
			2	250									2	700	2	700
													1	300	1	100
													3	3,000	2	1,000
													1	100	1	200
													1	300	2	1,000
			2	250												
													1	100	1	200
			38	6,880									19	11,200	11	3,550

During the year 1914, in the Public Waters of Lake Superior.

Sturgeon.	Fels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
400			400			6,000			27,591 00
100			4,200			14,000			55,215 00
7,998			500						43,925 26
				3,460					24,213 30
									13,491 80
									420 00
									6,775 10
									2,947 60
									6,151 50
									7,137 75
									11,767 70
			630						19,112 50
			770						33,534 30
			740						12,508 08
			213			22			1,287 30
									621 60
4						6,000			642 20
									650 00
									10,266 90
8,502		150	7,453	3,460		26,022			278,258 89
\$ c.		\$ c.	\$ c.	\$ c.		\$ c.			\$ c.
1,275 30		7 50	447 18	276 80		520 44			278,258 89

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1914, in the

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	Lake Huron, North Channel.			\$		\$			\$			\$	
1	Bruce Mines.....					1	225	1	2	45	2	3,700	218
2	Spanish Mills.....					1	300	2	9	650	12	17,800	1,260
3	Thessalon.....					1	600	2	10	670	13	17,000	1,100
4	Algoma Mills, St. Joseph Island..					1	450	3	1	75	1	1,200	50
5	Blind River, Lake Laboine.....								4	300	6	8,700	441
6	Iron Bridge, Grant Islands, Lacloche Lake					1	450	3	2	75	2	2,100	105
7	Hilton, Milford, Brimon Harbour, Cedar Islands.....					1	500	4	5	280	7	3,300	490
8	Cutler Bay, Nesterville, Spragge, Little Detroit.....	1	10	1,000	2	2	350	3	4	120	3	12,700	1,008
9	John's Island, Buswell's Point, Flat Point, St. Patricks Point..	3	74	14,000	15	2	1,200	2	7	500	6	8,100	465
10	Caterack Lake, Lake Chibleau, Mississauga Island					1	800	3	3	100	2	200	10
11	Gore Bay, Lake Kagawong.....	3	42	7,600	12				7	427	10	59,800	4,002
12	Killarney					9	2,600	19	6	525	12	73,300	3,030
13	Squaw and Rabbit Islands	4	83	11,000	20	3	825	6	1	80	2	251,000	12,950
14	Fitzwilliam and Duck Islands ...	3	60	12,000	16	9	4,100	19	1	25	2	151,500	10,870
15	South Bay and Providence Bay ...	5	85	15,000	25				1	50	2	214,000	14,700
16	Mississauga Straits, Meldrum Bay and Cockburn Islands.....	3	90	13,000	15	2	650	6	5	130	6	134,400	6,013
17	Little Current, Manitowaning Bay, Centre Island, Grandine Point..	2	40	6,000	8	3	950	7				12,400	575
18	Sheguindah Bay, Heywood Island, Strawberry Island, Rouse Island	1	28	3,000	4	3	2,200	8	5	270	9	19,920	1,075
19	Wekwemikong Bay, Burnt Island, Lonely Island.....					3	1,300	6					
	Totals.....	25	512	82,600	117	43	17,500	94	73	4,322	97	996,120	58,362

Return of the kinds, quantities and values of fish caught during

Number.	District.	Herring, salted.		Herring, fresh.		Whitefish, salted.		Whitefish, fresh.		Trout, salted.		Trout, fresh.		Pike.		Pickarel, or Dore.	
		brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.
	<i>Lake Huron, North Channel.</i>																
1	Bruce Mines.....	3			355				2,830		490						
2	Spanish Mills.....	57	1,795		2,560				12,200		9,117						
3	Thessalon.....				2,807				19,322		26,675						
4	Algoma Mills, St. Joseph Island..				7,170				9,420		3,078						
5	Blind River, Lake Laboine.....				460				890		1,435						
6	Iron Bridge, Grant Islands, Lacloche Lake						15,350				13,150		200			1,600	
7	Hilton, Milford, Brimon Harbour, Cedar Island.....			1							2,125		7,930			450	
8	Cutler Bay, Nesterville, Spragge, Little Detroit.....						1,534				4,632		5,765			9,190	
9	John's Island, Buswell's Point, Flat Point, St. Patricks Point..	70	6,277				18,885				18,029		11,590			199,250	
10	Caterack Lake, Lake Chibleau, Mississauga Island						8,290				12,385					25,310	
11	Gore Bay, Lake Kagawong.....		3,803				100,327		4		88,889		5,444			13,940	
12	Killarney						146,712		5		56,778		14,151			16,450	
13	Squaw and Rabbit Islands					3	165,195				174,455		10,049			5,040	
14	Fitzwilliam and Duck Islands	15					50,000				337,938						
15	South Bay and Providence Bay						35,461		43		404,497						
16	Mississauga Straits, Meldrum Bay, Cockburn Islands.....						65,005		15		307,968		20				
17	Little Current, Manitowaning Bay, Centre Island, Grandine Point..						39,130		1		12,573		9,907			38,390	
18	Sheguindah Bay, Heywood Island, Strawberry Island, Rouse Island			22			14,249				16,368		20,055			94,350	
19	Wekwemikong Bay, Burnt Island, Lonely Island.....						43,206				8,228		190			450	
	Totals.....	145	12,047	4	716,696	68	1,503,678	126,096	408,460								
	Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		1,450 00	602 35	40 00	71,669 60	680 00	150,367 80	10,087 68	40,846 40								

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the Public Waters of Lake Huron, North Channel.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
													2	20		
			3	550									1	100		
													2	325	1	300
			4	1,000									2	500	2	700
			4	1,000									2	300	1	300
			2	400									1	100	1	100
			24	6,100									6	2,100	6	5,500
			8	2,000									1	500	1	2,000
			10	5,000									3	1,600	3	4,550
			5	3,000												
			3	1,500												
			8	3,000					3,900	180			1	600	1	550
			8	2,000											1	1,000
			16	5,675									1	300	2	300
			13	3,300												
			10	3,000									1	400	1	500
			8	2,400												
			126	39,925					3,900	180			23	7,025	20	15,800

the year 1914, in the Public Waters of Lake Huron, North Channel.

Sturgeon.	Eels.	Perc.	Tullibee.	Catfish.	Carp.	Mixed and Coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
		1,735				4,780			734 20
		3,300				20,260			4,113 66
121		190			190	17,629			5,406 45
						11,577			2,731 34
						1,860			354 80
600						27,800			4,596 00
		1,510				4,370			1,191 40
1,040		500			485	23,972			3,893 70
18,844		1,382		805		152,045	187		36,304 30
2,200						78,000	100		8,929 00
375		5,302	212			43,806			23,506 34
215		610		1,250		2,068			23,442 78
			85,505			4,669			35,536 47
246			6,104		46				44,074 10
									44,829 86
90		350				5,600			37,760 00
1,117					190	36,918	16		11,845 51
5,470		100			500	56,448			17,760 30
110									5,220 10
30,428		14,909	91,821	2,055	1,416	491,697	303		311,643 31
\$ c.		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.			\$ c.
4,564 20		745 45	5,509 26	164 40	28 32	24,584 85	303 00		311,643 31

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1914,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats			Gill-Nets.	
		No.	Ton-nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
Georgian Bay.				\$			\$			\$			\$
1	Byng Inlet.	1	24	4,000	5	4	3,200	2	3	215	4	61,750	3,100
2	Parry Sound.	5	50	14,000	26	5	1,750	7	9	1,155	12	336,000	15,770
3	Waubauskene.								17	1,480	22	41,500	3,850
4	Penetanguishene.	1	6	300	3	1	150	2	6	185	12	38,100	1,875
5	Collingwood.	2	50	6,000	10	7	2,300	14	10	840	17	143,300	7,555
6	Meaford (including Owen Sound Bay)	6	112	18,500	23	13	3,695	16	20	1,315	24	300,340	17,149
7	Colpoys's Bay to Tobermory.	3	63	9,200	15	6	2,025	13	22	2,430	33	173,000	10,820
	Totals.....	18	305	52,000	82	36	13,120	54	87	7,620	124	1,093,990	60,119

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickereel or Dorr.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Georgian Bay.</i>								
1	Byng Inlet	160		350	75,486		38,706	19,095	38,285
2	Parry Sound			2	300,191	22	212,434	2,956	8,283
3	Waubauskene				3,005	13	9,359	51,993	20,900
4	Penetanguishene	59		24	9,250	27	12,600		200
5	Collingwood	4	21,979	3	11,950	300	57,851		
6	Meaford (including Owen Sound Bay)		9,580		6,050	39	285,026		
7	Colpoys Bay to Tobermory	36	3,695	12	9,871	157	219,800		160
	Totals	229	35,254	391	415,803	558	835,776	74,044	67,828
	Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		2,590 00	1,762 70	3,910 00	41,580 30	5,550 00	83,577 60	5,923 52	6,782 80

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the fishing in the Public Waters of the Georgian Bay.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop nets.		Dip or Roll Nets		Night Lines.		Spears		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
			7	3,250									6	1,150	5	600
					12	350							3	375	3	225
													4	175	4	620
									11,700	1,360			7	765	3	360
			2	650					5,200	350						
			9	3,900	12	350			16,900	1,710			20	2,465	15	1,805

during the year 1914, in the Public Waters of the Georgian Bay.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
1,423	12,263	150	.....	29,851 90
.....	52,567 28
.....	5,052	.....	2,919	1,900	33,597	101	300	10,100 81
.....	5	.....	.....	.....	.....	3,105 40
5,400	1,754	.....	.....	600	4,700	775	.....	13,068 75
.....
.....	19,500	.....	.....	1,000	.....	.....	29,976 60
.....	26,976 85
6,823	6,806	19,500	2,924	2,500	51,560	1,026	300	158,108 59
\$ c.		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,023 45	340 30	1,170 00	233 92	50 00	2,578 00	1,026 00	180 00	158,108 59

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1914,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake Huron (Proper).</i>			\$			\$			\$			\$
1	Tobermory to Southampton (including Saugeen River).....	8	162	26,100	42	3	1,200	7	34	2,608	52	431,260	24,441
2	Southampton to Pine Point.....	1	20	3,000	5	1	500	3	10	450	13	78,890	3,513
3	County of Huron.....					5	2,450	14	8	1,270	14	58,320	3,177
4	County of Lambton (including River St. Clair).....	3	12	850	10	8	3,400	11	41	2,775	60	.....	.....
	Totals.....	12	194	29,950	57	17	7,550	35	93	7,103	139	568,470	31,131

Returns of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickereel, or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake Huron (Proper).</i>								
1	Tobermory to Southampton (including Saugeen River).....	445	17,225	39	16,717	289½	462,396	57	50
2	Southampton to Pine Point.....		1,000		685	20½	115,017		
3	County of Huron.....		12,039		5,780	9	76,826		9,726
4	County of Lambton (including River St. Clair).....	23	133,108		38,626		15,265	1,005	181,414
	Totals.....	468	163,372	39	61,808	319	669,604	1,062	191,190
	Values.....	\$ c. 4,680 00	\$ c. 8,168 60	\$ c. 390 00	\$ c. 6,180 80	\$ c. 3,190 00	\$ c. 66,960 40	\$ c. 84 96	\$ c. 19,119 00

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Huron (Proper).

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....	.....	.....	2	400	.....	.....	5	9	.....	.....	.....	.....	5	4,300	2	250
.....	.....	.....	8	2,000	.....	.....	.....	.....	.....	.....	.....	.....	7	800	2	30
7	324	410	58	17,550	.....	.....	24	41	.....	.....	.....	.....	3	650	.....	..
7	324	410	68	19,950	.....	.....	29	50	.....	.....	.....	.....	15	5,750	4	280

during the year 1914, in the Public Waters of Lake Huron (Proper).

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
37	.....	35,198	367,198	.....	.....	3,627	.....	.....	80,495 79
1,750	.....	1,800	.....	.....	50	14,260	.....	.....	11,915 20
.....	.....	67,655	450	.....	.....	.....	124	.....	14,435 40
14,672	50	10,570	.....	161	9,956	85,153	1,311 1/2	25	38,735 00
14,459	50	115,223	367,648	161	10,006	108,040	1,435 1/2	25	145,581 39
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
2,168 85	3 00	5,761 15	22,058 88	12 88	200 12	5,152 00	1,435 75	15 00	145,581 39

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1914.

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake St. Clair.</i>			\$			\$			\$			\$
1	Kent County (including River Thames)					27	6,850	62	47	1,385	63	.....	.....
2	Essex County					22	5,750	40	38	1,480	56	.....	.....
3	Detroit River.....					3	660	12	34	390	85	.....	.....
	Totals.....					52	13,250	114	119	3,755	204	.....	.....

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake St. Clair.</i>								
1	Kent County (including River Thames)							47,105	= 15,948
2	Essex County				16,300			5,935	16,000
3	Detroit River.....				30,300			9,800	14,265
	Totals.....				46,600			62,840	46,213
	Values				\$ c. 4,660 00			\$ c. 5,027 20	\$ c. 4,621 30

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake St. Clair.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$.		\$.		\$.		\$.		\$.		\$.		\$.		\$.
13	3,099	1,258	.....	.....	104	6,615	37	125.30	2,100	28.62	.....	.....	19	4,500	7	2,250
12	1,775	825	12	2,825	58	2,835	.....	.....	1,600	80	.....	.....	16	6,700	.....	.....
32	4,115	1,676	.....	.....	1	15	.....	.....	600	11	.....	.....	2	1,500	.....	.....
57	8,989	3,759	12	2,825	163	9,465	37	155.	4,300	131.50	.....	.....	37	12,700	7	2,250

during the year 1914, in the Public Waters of Lake St. Clair.

Sturgeon.	Eels.	Perch.	Tulibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
11,540	8,450	245,690	.....	47,720	699,475	895,580	700	.....	83,171 80
29,000	.....	31,250	.....	30,450	172,800	185,600	995	.....	25,784 30
425	.....	6,700	.....	200	155.400	34,200	24	.....	10,497 25
40,965	8,450	283,640	.....	78,370	1,027,675	1,115,380	1,719	.....	119,453 35
\$ c.	\$ c.	\$ c.	.....	\$ c.	\$ c.	\$ c.	\$ c.	.....	\$ 1.
6,144 75	507 00	14,182 00	.....	6,269 60	20,553 50	55,769 00	1,719 00	.....	119,453 35

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1914,

Number.	District.	Fishing material.											
		Tugs				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake Erie.</i>			\$		\$		\$		\$		\$	
1	Peelee Island.....	4	115	21,500	26				12	2,815	27	50,877	6,445
2	Essex County.....								53	23,775	109	7,600	2,800
3	Kent West.....	2	49	11,500	15				41	17,725	57	25,000	5,800
4	Kent East.....					26	12,700	94					
5	Elgin West.....	7	23	15,050	16	21	9,050	67	3	200	2	78,900	11,800
6	Elgin East.....	19	619	134,500	113	9	8,600	29	1	25	1	281,600	99,060
7	Norfolk County.....	9	238	44,500	66	8	3,080	22	87	4,564	183	99,200	19,799
8	Haldimand County (to and in- cluding the Grand River).....	9	129	35,500	47	14	7,450	39	34	612	26	112,395	14,421.50
9	Port Maitland to Port Colborne.....								18	588	19	12,500	685
10	Port Colborne to Niagara Falls.....					2	500	4	9	345	10	13,600	529.50
	Totals.....	50	1,173	262,550	283	80	41,380	255	258	50,649	434	681,672	161,320

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.		Herring, fresh.		Whitefish, salted.		Whitefish, fresh.		Trout, salted.		Trout, fresh.		Pike.	Pickarel, or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.		
	<i>Lake Erie.</i>														
1	Peelee Island.....		181,777				68,405						15,914		9,590
2	Essex County.....		194,349				478,137			18	125		397,396		91,248
3	Kent West.....		630,528				156,249						895,186		47,853
4	Kent East.....		448,322				64,116						646,607		35,593
5	Elgin West.....		686,685				134,611						678,021		196,298
6	Elgin East.....		2,019,311				493,218						89,001		912,493
7	Norfolk County.....		789,944				312,378				717		148,958		275,596
8	Haldimand County (to and including the Grand River).....		1,012,373				285,014				1,652		35,037		504,041
9	Port Maitland to Port Colborne.....		1,000										12,924		9,067
10	Port Colborne to Niagara Falls.....		17,253				490						7,753		4,150
	Totals.....		5,981,542				1,992,618			18	2,494		2,926,797		2,085,829
	Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
			299,077 13				199,261 80			180 00	249 40		234,143 76		208,552 90

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake Erie.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
9	600	150	11	3,000	.....	.....	2	8	.....	.....	.....	.....	3	6,700	1	2,000
4	775	265	178	90,000	.....	.....	.....	.....	.....	.....	.....	.....	18	6,675	2	600
1	100	50	95	50,300	.....	.....	.....	.....	.....	.....	.....	.....	19	20,400	7	3,350
7	2,100	965	74	38,700	.....	.....	.....	.....	.....	.....	.....	.....	20	12,000	8	1,200
.....	.....	.....	73	42,200	.....	.....	.....	.....	.....	.....	.....	.....	14	9,450	9	2,500
.....	.....	.....	6	3,600	.....	.....	4	21	550	14 50	.....	.....	5	1,650	2	400
44	16,240	5,730	18	7,000	.....	.....	.....	.....	2,490	36 25	.....	.....	18	17,270	9	3,880
4	295	158	44	26,350	.....	.....	48	93.50	430	7 75	.....	.....	18	10,040	6	1,650
.....	.....	.....	.....	.....	.....	.....	14	30.50	7,440	99	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	500	10	.....	.....	.....	.....	.....	.....
62	20,110	7,318	499	261,150	.....	.....	68	153	11,410	167 50	.....	.....	115	84,185	44	15,580

during the year 1914, in the Public Waters of Lake Erie.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
3,644	.....	135,227	.....	6,930	146,715	33,980	372	.....	30,529 12
11,065	.....	159,142	2,699	11,268	335,038	287,957	914	.....	151,333 47
3,716	.....	302,937	.....	.....	5,062	123,940	65	.....	145,629 22
1,912	.....	243,488	.....	4,590	313,280	61,727	83	3	106,381 46
1,249	.....	155,709	.....	4,700	2,200	91,937	190	.....	134,846 48
1,560	.....	150,211	226,765	8,990	1,640	36,667	.....	.....	272,592 53
4,738	12	185,637	24,833	11,103	542,338	146,880	.....	.....	140,825 19
17,072	61	79,501	.....	1,252	48,349	59,343	376	291	143,616 71
11,197	1	980	.....	245	237	9,198	682	25	4,900 47
113	.....	5,152	.....	14	259	9,985	.....	.....	2,737 02
56,266	74	1,407,984	254,297	49,092	1,395,118	861,614	2,683	319	1,113,381 67
\$ c.		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
8,439 90	4 44	70,399 20	15,257 82	3,927 36	27,902 36	43,080 70	2,683 50	191 40	1,113,381 67

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1914.

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill- Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	Lake Ontario.			\$		\$		\$		\$		\$	c.
1	Lincoln County.....	14				5,350	28	1	75	2	59,200		3,100 00
2	Wentworth County.....	8				5,000	16	18	670	31	36,100		2,504 00
3	Halton County.....	18				4,560	34	4	48	4	92,400		4,383 00
4	Peel County.....	5				1,300	5				15,000		4,800 00
5	York County.....	9				2,715	18	7	470	14	34,590		2,632 00
6	Ontario County.....	2				550	4	3	80	4	9,150		460 00
7	Durham County.....	1				250	2				3,000		400 00
8	Welland County.....												
9	Northumberland County.....	8				2,210	17	37	1,500	65	59,880		2,750 00
10	Prince Edward County.....	29				7,125	57	85	2,700	136	242,630		10,525 50
11	Bay of Quinte (Proper).....	3				450	7	186	9,007	293	61,400		5,231 25
12	Bay of Quinte (Eastern Channel).....	10				2,150	21	89	2,735	106	69,700		2,587 00
13	Wolfe Island and Vicinity).....	3				1,000	7	30	1,600	56	36,200		1,370 00
	Totals.....	110				30,660	216	460	18,885	711	719,250		40,742 75

* 1 machine used in Niagara River.

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake Ontario.</i>								
1	Lincoln County.....		380,831		17,299		35,700	300	35,800
2	Wentworth County.....		108,500		32,500		4,750	28,800	600
3	Halton County.....		117,650		9,500		17,800		
4	Peel County.....	10	39,500		12,250		13,300		
5	York County.....		26,635		22,497		9,607	60	
6	Ontario County.....		1,150		4,000		600	280	
7	Durham County.....		5,000		4,900		1,000		
8	Welland County.....							332	279
9	Northumberland County.....	12	54,500		18,493		42,143	53,081	
10	Prince Edward County.....	228½	97,061	150	224,239		352,291	31,993	831
11	Bay of Quinte (Proper).....	62	149,129	1,261	110,170	150	500	106,826	22,904
12	Bay of Quinte (Eastern Channel).....		10,550		48,228	2	85,253	1,896	2,587
13	Wolfe Island and Vicinity.....	1	900	2	11,461	11	37,420	24,455	1,300
	Totals.....	313½	991,406	1,413½	515,537	163	600,364	248,023	64,251
	Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		3,135 00	49,570 30	14,135 00	51,553 70	1,630 00	60,036 40	19,841 84	6,425 10

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Ontario.

Fishing material.														Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.		
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.	
		\$		\$		\$		\$		\$		\$		\$		\$	
8	670	235			1	5	*40	69		1,100	11 00	144	216	†147	2,090		
														16	1,335		
														3	330		
																3	315
														2	150		
														2	200		
							11	26 30									
					58	1,105								2	75		
					54	1,010			6,915	240 60				11	650	1	25
					315	8,500			6,900	95 35				2	170	3	35
					18	300			17,400	554 00				2	330		
					86	1,650	4	33 25						6	725	6	515
8	670	235			532	12,570	*55	128 55	32,315	900 95	144	216	†193	6,055	13	890	

†144 of these are spearing houses valued at \$1,440

during the year 1914, in the Public Waters of Lake Ontario.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Smoked Herring.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
		2,380		1,785		14,855				28,950 00
	4,040	850			44,900	4,350				12,914 40
									113,300	19,942 50
						3,203				4,630 00
		31				201				7,707 10
						3,000				551 50
						595				990 00
										122 13
	7,430	16,340		24,986	6,200	74,226				20,252 06
100	73,517	10,485		15,185	1,400	56,595				77,968 41
	83,208	56,072	1,780	183,255	22,295	141,678			6,892	74,872 21
50	111,226	3,900		8,068	116	9,657				22,312 65
	20,488	15,300		35,036	6,050	40,425				14,098 91
150	299,913	105,428	1,980	268,613	81,478	348,785			120,192	282,311 87
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
22 50	17,994 78	5,271 40	118 80	21,489 04	1,629 56	17,439 25			12,019 20	282,311 87

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1914

Number.	District.	Fishing Material.												
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill Nets.		
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.	
	<i>Inland Waters.</i>			\$		\$		\$			\$			
1	Frontenac County					1	100		2	118	2,006	166	4,461	669 10
2	Lanark, Leeds, Lennox and Addington Counties.....					5	950		9	188	3,653	320	5,516	562 50
3	Renfrew, Carleton, Grenville, Russell and Prescott Counties..					4	1,000		4	119	1,136	109	2,030	104 00
4	Lake Simcoe					4	1,400		2	7	200	13		
5	Nipissing and Timiskaming Dis- tricts								3	345		3	1,125	45 00
	Totals.....					14	3,450		17	435	7,245	611	13,132	1,980 60

Return of the kinds, quantities and values of fish caught

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Tout, fresh.	Pike.	Pickeral or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Inland Waters.</i>								
1	Frontenac County.....	9	14,787				22	13,820	215
2	Lanark, Leeds, Lennox and Addington Counties.....			1½	12,010			8,196	
3	Renfrew, Carleton, Grenville, Russell and Prescott Counties..				100			2,010	930
4	Lake Simcoe		25		6,797		2,923		
5	Nipissing and Timiskaming Dis- tricts				2,150		1,820	1,100	70
	Totals.....	9	14,812	1½	21,057		4,765	25,126	1,215
	Values	\$ c. 90 00	\$ c. 740 60	\$ c. 15 00	\$ c. 2,105 70		\$ c. 476 50	\$ c. 2,010 08	\$ c. 121 50

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Inland Waters.

Fishing Material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$ -		\$		\$		\$		\$		\$		\$		\$
9	139	117	.....		25	792	.....		600	4 50	.....		.....		.....
11	320	305	.....		122	2,134	26	65 75	6,200	62 00	.....		3	225	.....
.....			.....		13	229	57	156 50	9,700	204 00	.....		1	10	.....
1	400	150	.....		.....				4,200	70 50	46	92 20	2	650	2	100
.....			.....		3	90	.....		.....				1	60	.....
21	859	572	.....		163	3,245	83	222 25	20,700	341	46	92 20	7	945	2	100

during the year 1914, in the Public Inland Waters.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
	8,040	764		31,485		876 05			9,378 30
	30,198	6,281		66,593		126,788			15,664 15
765	785	1,300		17,195	955	23,950		100	3,142 85
		10,617			145,797	61,490			7,494 54
		25	300	2,300		1,925			791 50
765	39,023	18,987	300	117,573	146,752	301,758		100	36,471 64
\$ 114 75	\$ 2,341 38	\$ 949 35	\$ 18 00	\$ 9,405 84	\$ 2,935 04	\$ 15,087 90		60 00	\$ 36,471 64

ONTARIO

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats, industry during

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
			\$			\$			\$			\$	
1	Kenora and Rainy River	9	59	14,950	19	49	15,780	105	36	2,830	64	127,600	16,206 00
2	Lake Superior.....	19	302	67,200	88	6	2,850	14	78	8,695	142	869,570	44,832 00
3	Lake Huron (North Channel).....	25	512	82,600	117	43	17,500	94	73	4,322	97	996,120	58,362 00
4	Georgian Bay	18	305	52,000	82	36	13,120	54	87	7,620	124	1,093,990	60,119 00
5	Lake Huron (Proper)	12	194	29,950	57	17	7,550	35	93	7,103	139	568,470	31,131 00
6	Lake St. Clair, etc.....					52	13,250	114	119	3,755	204		
7	Lake Erie	50	1,173	262,550	283	80	41,380	255	258	50,649	434	681,672	161,320 00
8	Lake Ontario.....					110	30,660	216	460	18,885	711	719,250	40,742 75
9	Inland Waters					14	3,450	17	435	7,340	611	13,132	1,380 60
	Totals.....	133	2,545	509,250	646	407	145,540	904	1639	111,199	2,526	5,069,804	414,093 35

*1 machine used in the Niagara River.

Recapitulation of the kinds, quantities and values

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickeral or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Kenora and Rainy River.....			150	995,041		161,713	760,554	922,968
2	Lake Superior.....	1,915	781,935	313	337,564	690	1,438,842	201,287	129,307
3	Lake Huron (North Channel)....	145	12,047	4	716,696	68	1,503,678	126,096	408,464
4	Georgian Bay.....	239	35,254	391	415,803	553	835,776	74,044	67,828
5	Lake Huron (Proper)	468	163,372	39	61,808	319	669,604	1,062	191,190
6	Lake St. Clair, etc.....				46,600			62,840	46,213
7	Lake Erie		5,981,542½		1,992,618	18	2,494	2,926,797	2,085,829
8	Lake Ontario.....	313½	991,406	1,413½	515,537	163	600,364	248,023	64,251
9	Inland Waters.....	9	14,812	1½	21,057		4,765	25,126	1,215
	Totals.....	3,089½	7,980,368½	2,312	5,102,724	1,812	5,217,236	4,425,829	3,917,265
	Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		30,895 00	399,018 43	23,120 00	510,272 40	18,120 00	521,723 60	354,066 32	391,726 50

FISHERIES.

the quantity and value of all fishing material and other fixtures employed in the fishing the year 1914.

Fishing material.—Continued.												Other fixtures used in fishing.					
Seines.			Pound nets.		Hoop nets.		Dip or Roll nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.		
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.	
		\$		\$		\$		\$		\$		\$		\$		\$	
.....	.....	.....	36	11,525	14	2,075	.....	.....	.....	.....	.....	.....	16	8,750	11	2,325
.....	.....	.....	38	6,880	.....	.....	.....	.....	.....	.....	.....	.....	19	11,200	11	3,550
.....	.....	.....	126	39,925	.....	.....	.....	.....	.....	3,900	180 00	.....	23	7,025	20	15,800
.....	.....	.....	9	3,900	12	350	.....	.....	.....	16,900	1,710 00	.....	20	2,465	15	1,805
.....	.....	.....	68	19,950	.....	.....	29	50 00	.....	.....	.....	.....	15	5,750	4	280
57	324	410	68	19,950	.....	.....	29	50 00	.....	.....	.....	.....	15	5,750	4	280
7	8,989	3,759	12	2,825	163	9,465	37	155 00	.....	4,300	131 50	.....	37	12,700	7	2,250
62	20,110	7,318	499	261,150	.....	.....	68	153 00	.....	11,410	187 50	.....	115	84,185	44	15,580
8	670	235	532	12,570	*55	128 55	32,315	900 95	144	216 00	+193	6,055	13	890
21	859	572	163	3,245	83	222 25	20,700	341 00	46	92 20	7	945	2	100
155	30,952	12,294	788	346,155	884	27,705	272	708 80	89,525	3,430 95	190	308 20	445	139,075	127	42,580	

t144 of these are spearing houses valued at \$1,440.

of fish caught during the year 1914.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Herring Smoked.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
95,804	.....	500	127,133	66,420	124,730	163,860	1,685	95½	.....	310,082 40
8,502	.....	150	7,453	3,460	.....	26,022	.....	.....	.....	278,258 89
30,428	.....	14,909	91,821	2,055	1,416	491,697	303	.....	.....	311,643 81
6,823	.....	6,806	19,500	2,924	2,500	51,560	1,026	300	.....	158,108 59
14,459	50	115,223	367,648	161	10,006	103,840	1,435½	25	.....	145,581 39
40,965	8,450	283,640	.....	78,370	1,027,675	1,115,380	1,719	.....	.....	119,453 35
56,266	74	1,407,984	254,297	49,092	1,395,118	861,614	2,683½	319	.....	1,113,381 67
150	299,913	105,428	1,980	268,618	81,478	348,785	.....	.....	120,192	282,311 87
765	39,023	18,987	300	117,573	146,752	301,758	.....	100	.....	36,471 64
254,162	347,510	1,953,627	870,132	588,668	2,789,675	3,464,516	8,852½	837½	120,192	2,755,293 11
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
38,124 20	20,850 60	97,681 35	52,207 92	47,093 44	55,793 50	173,235 80	8,852 25	502 50	12,019 20	2,755,293 11

Comparative Statement of yield for 1913-14, according to Districts.

	1913.	1914.	Increase.	Decrease.
Kenora and Rainy River District:				
Herring.....bbls.				
Herring.....lbs.				
Whitefish.....bbls.		150	150	
Whitefish.....lbs.	1,199,206	995,041		204,165
Trout.....bbls.				
Trout.....lbs.	90,058	161,713	71,655	
Pike.....	692,854	760,554	67,700	
Pickereel (Dore).....	879,955	922,968	43,013	
Sturgeon.....	89,730	95,804	6,074	
Eels.....				
Perch.....		500	500	
Tullibee.....	177,379	127,133		50,246
Catfish.....	17,006	66,420	49,414	
Carp.....		124,730	124,730	
Mixed and Coarse fish.....	247,002	163,860		83,142
Caviare.....	2,350	1,685		665
Sturgeon Bladders.....No.	128	93½		34½
Lake Superior:				
Herring.....bbls.	12	10		2
Herring.....lbs.	299,000	781,935	482,935	
Whitefish.....bbls.	102	313	211	
Whitefish.....lbs.	373,468	337,564		35,904
Trout.....bbls.	2,262	690		1,572
Trout.....lbs.	1,401,677	1,438,842	37,165	
Pike.....	38,201	201,287	163,086	
Pickereel (Dore).....	104,068	129,307	25,239	
Sturgeon.....	2,760	8,502	5,742	
Eels.....				
Perch.....		150	150	
Tullibee.....	873	7,453	6,580	
Catfish.....		3,460	3,460	
Carp.....				
Mixed and Coarse fish.....	110,531	26,022		84,509
Caviare.....				
Sturgeon Bladders.....No.				
Lake Huron, North Channel:				
Herring.....bbls.	155	145		10
Herring.....lbs.	19,263	12,047		7,576
Whitefish.....bbls.	251	4		247
Whitefish.....lbs.	599,140	716,696	117,556	
Trout.....bbls.	87	68		19
Trout.....lbs.	1,719,897	1,503,678		216,219
Pike.....	87,262	126,096	38,834	
Pickereel (Dore).....	486,949	408,464		28,465
Sturgeon.....	29,981	30,428	447	
Eels.....				
Perch.....	7,804	14,909	7,105	
Tullibee.....	21,135	91,821	70,686	
Catfish.....	2,506	2,055		451
Carp.....		1,416	1,416	
Mixed and Coarse fish.....	443,491	491,697	48,206	
Caviare.....	252½	303	50½	
Sturgeon Bladders.....No.				
Georgian Bay:				
Herring.....bbls.	177½	239	61½	
Herring.....lbs.	55,150	35,254		19,896
Whitefish.....bbls.	408	391		17
Whitefish.....lbs.	374,743	415,803	41,060	
Trout.....bbls.	1,389½	558		831½
Trout.....lbs.	930,880	835,776		95,104

Comparative Statement of yield for 1913-14, according to Districts—Continued.

		1913.	1914.	Increase.	Decrease.
Georgian Bay—Continued:					
Pike.....	lbs.....	36,983	74,044	37,061	.....
Pickereel (Dore).....	".....	45,621	67,828	22,207	.....
Sturgeon.....	".....	6,889	6,823	.....	66
Eels.....	".....	.....	.....	.....	.....
Perch.....	".....	3,860	6,806	2,946	.....
Tullibee.....	".....	63,703	19,500	.....	44,203
Catfish.....	".....	5,990	2,924	.....	3,066
Carp.....	".....	.....	2,500	2,500	.....
Mixed and Coarse Fish.....	".....	46,227	51,560	5,333	.....
Caviare.....	".....	835	1,026	191	.....
Sturgeon Bladders.....	No.....	.....	.....	.....	.....
Lake Huron (proper):					
Herring.....	bbls.....	288	468	180	.....
Herring.....	lbs.....	142,404	163,372	20,968	.....
Whitefish.....	bbls.....	14	39	25	.....
Whitefish.....	lbs.....	36,217	61,808	25,591	.....
Trout.....	bbls.....	351	319	.....	32
Trout.....	lbs.....	673,258	669,604	.....	3,654
Pike.....	".....	1,593	1,062	.....	531
Pickereel (Dore).....	".....	121,615	191,190	69,575	.....
Sturgeon.....	".....	14,182	14,459	277	.....
Eels.....	".....	3	50	47	.....
Perch.....	".....	49,358	115,223	65,865	.....
Tullibee.....	".....	243,800	367,648	123,848	.....
Catfish.....	".....	184	161	.....	23
Carp.....	".....	1,600	10,006	8,406	.....
Mixed and coarse fish.....	".....	59,858	103,040	43,182	.....
Caviare.....	".....	967	145 ³ / ₄	468 ³ / ₄	.....
Sturgeon Bladders.....	No.....	7	25	18	.....
Lake St. Clair and Detroit River:					
Herring.....	bbls.....	.....	.....	.....	.....
Herring.....	lbs.....	100	.....	.....	100
Whitefish.....	bbls.....	.....	.....	.....	.....
Whitefish.....	lbs.....	70,350	46,600	.....	23,750
Trout.....	bbls.....	.....	.....	.....	.....
Trout.....	lbs.....	.....	.....	.....	.....
Pike.....	".....	38,835	62,840	24,005	.....
Pickereel (Dore).....	".....	67,022	46,213	.....	20,809
Sturgeon.....	".....	60,128	40,965	.....	19,163
Eels.....	".....	.....	8,450	8,450	.....
Perch.....	".....	75,493	283,640	208,148	.....
Tullibee.....	".....	20,050	.....	.....	20,050
Catfish.....	".....	70,428	78,370	7,942	.....
Carp.....	".....	132,665	1,027,675	895,010	.....
Mixed and coarse fish.....	".....	508,109	1,115,380	607,271	.....
Caviare.....	".....	326	1,719	1,393	.....
Sturgeon Bladders.....	No.....	.....	.....	.....	.....
Lake Erie:					
Herring.....	bbls.....	.....	.....	.....	.....
Herring.....	lbs.....	11,608,428	5,981,542 ¹ / ₂	.....	5,626,885 ¹ / ₂
Whitefish.....	bbls.....	204	.....	.....	204
Whitefish.....	lbs.....	1,938,992	1,992,618	53,626	.....
Trout.....	bbls.....	18	.....	18	.....
Trout.....	lbs.....	1,769	2,494	725	.....
Pike.....	".....	2,287,602	2,926,797	639,195	.....
Pickereel (Dore).....	".....	963,670	2,085,829	1,122,159	.....
Sturgeon.....	".....	47,976	56,266	8,290	.....
Eels.....	".....	.....	74	74	.....

Comparative Statement of yield for 1913-14, according to Districts—Continued.

	1913.	1914.	Increase.	Decrease.
Lake Erie.—Continued:				
Perch.....lbs....	954,829	1,407,984	453,155	.....
Tullibee.....".....	42,710	254,297	211,587	.....
Catfish.....".....	26,546	49,092	22,546	.....
Carp.....".....	373,948	1,395,118	1,021,170	.....
Mixed and coarse fish.....".....	817,380	861,614	44,234	.....
Caviare.....".....	2,680½	2,683½	3	.....
Sturgeon Bladders.....No.....	188	319	131	.....
Lake Ontario:				
Herring.....bbls....	182½	313½	131	.....
Herring.....lbs....	685,811½	991,406	305,594½	.....
Whitefish.....bbls....	223½	1,413½	1,190	.....
Whitefish.....lbs....	473,167	515,537	42,370	.....
Trout.....bbls....	128	163	35	.....
Trout.....lbs....	547,803	600,364	52,561	.....
Pike.....".....	221,331	248,023	26,692	.....
Pickere! (Dore).....".....	26,748	64,251	37,503	.....
Sturgeon.....".....	89	150	61	.....
Eels.....".....	191,275	299,913	108,638	.....
Perch.....".....	124,909	105,428	.....	19,481
Tullibee.....".....	3,000	1,980	.....	1,020
Catfish.....".....	279,370	268,613	.....	10,757
Carp.....".....	47,600	81,478	33,878	.....
Mixed and Coarse fish.....".....	355,931½	348,785	.....	7,145½
Caviare.....".....	1,000	.....	.....	1,000
Sturgeon Bladders.....No.....	.....	.....	.....	.....
Herring, Smoked.....lbs....	88,900	120,192	31,292	.....
Inland Waters:				
Herring.....bbls....	.....	9	9	.....
Herring.....lbs....	9,440	14,812	5,372	.....
Whitefish.....bbls....	48½	1½	.....	47
Whitefish.....lbs....	10,841	21,057	10,216	.....
Trout.....bbls....	5	.....	.....	5
Trout.....lbs....	10,736	4,765	.....	5,971
Pike.....".....	50,070	25,126	.....	24,944
Pickere! (Dore).....".....	10,805	1,215	.....	9,590
Sturgeon.....".....	1,745	765	.....	980
Eels.....".....	45,742	39,023	.....	6,719
Perch.....".....	26,487	18,987	.....	7,500
Tullibee.....".....	1,167	300	.....	867
Catfish.....".....	124,412	117,573	.....	6,839
Carp.....".....	116,312	146,752	.....	30,440
Mixed and Coarse fish.....".....	240,598	301,758	61,160	.....
Caviare.....".....	.....	.....	.....	30
Sturgeon Bladders.....No.....	130	100	.....	30

Comparative Statement of the yield of the Fisheries of the Province.

	1913	1914	Increase.	Decrease.
Herring.....bbls.....	815	3,089½	2,274½	.....
Herring.....lbs.....	12,819,956½	7,980,368½	.....	4,839,588
Whitefish.....bbls.....	1,251	2,312	1,061	.....
Whitefish.....lbs.....	5,076,124	5,102,724	26,600	.....
Trout.....bbls.....	4,222½	1,812	.....	2,410½
Trout.....lbs.....	5,376,078	5,217,236	.....	158,842
Pike.....“.....	3,454,731	4,425,829	971,098	.....
Pickrel (Dore).....“.....	2,656,453	3,917,265	1,260,812	.....
Sturgeon.....“.....	253,480	254,162	682	.....
Eels.....“.....	237,020	347,510	110,490	.....
Perch.....“.....	1,242,739	1,953,627	710,888	.....
Tullibee.....“.....	573,817	870,132	296,315	.....
Catfish.....“.....	526,442	588,668	62,226	.....
Carp.....“.....	672,125	2,789,675	2,117,550	.....
Mixed and Coarse fish.....“.....	2,829,127½	3,464,516	635,388½	.....
Caviare.....“.....	8,411	8,852½	441½	.....
Sturgeon Bladders.....No.....	453	837½	384½	.....
Herring, smoked.....lbs.....	88,900	120,192	31,292	.....
Total Barrels.....	6,288½	5,312½	.....	.....
Total Pounds.....	35,815,857	37,039,956	.....	.....
Total Decrease of Barrels.....	.....	.....	.....	976
Total Increase of Pounds.....	.....	.....	1,224,099	.....

Statement of the yield and value of the Fisheries of the Province for the year 1914.

Kinds of Fish.	Quantity.	Price.	Value.
		\$ c.	\$ c.
Herring.....bbls.....	3,089½	10 00	30,895 00
Herring.....lbs.....	7,980,368½	05	399,018 43
Whitefish.....bbls.....	2,312	10 00	23,120 00
Whitefish.....lbs.....	5,102,724	10	510,272 42
Trout.....bbls.....	1,812	10 00	18,120 00
Trout.....lbs.....	5,217,236	10	521,723 60
Pike.....“.....	4,425,829	08	354,066 32
Pickrel (Dore).....“.....	3,917,265	10	391,726 50
Sturgeon.....“.....	254,162	15	38,124 30
Eels.....“.....	347,510	06	20,850 60
Perch.....“.....	1,953,627	05	97,681 35
Tullibee.....“.....	870,132	06	52,207 92
Catfish.....“.....	588,668	08	47,093 44
Carp.....“.....	2,789,675	02	55,793 50
Mixed and Coarse Fish.....“.....	3,464,516	05	173,225 80
Caviare.....“.....	8,852½	1 00	8,852 25
Sturgeon Bladders.....No.....	837½	60	502 50
Herring, smoked.....lbs.....	120,192	10	12,019 20
Total.....	.....	.....	.....

Value of Ontario Fisheries from 1870 to 1914, inclusive.

Year.	Value.	Year.	Value.
	\$		\$
1870.....	264,982	Brought forward.....	19,379,564 00
1871.....	193,524	1892.....	2,042,198 00
1872.....	267,633	1893.....	1,694,930 00
1873.....	293,091	1894.....	1,659,968 00
1874.....	446,267	1895.....	1,584,472 00
1875.....	453,194	1896.....	1,605,674 00
1876.....	437,229	1897.....	1,289,822 00
1877.....	438,223	1898.....	1,433,631 00
1878.....	348,122	1899.....	1,477,815 00
1879.....	367,133	1900.....	1,333,293 00
1880.....	444,491	1901.....	1,428,078 00
1881.....	509,903	1902.....	1,265,705 00
1882.....	825,457	1903.....	1,535,144 00
1883.....	1,027,033	1904.....	1,793,524 00
1884.....	1,133,724	1905.....	1,708,963 00
1885.....	1,342,692	1906.....	1,734,865 00
1886.....	1,435,998	1907.....	1,935,024 90
1887.....	1,531,850	1908.....	2,100,078 60
1888.....	1,839,869	1909.....	2,237,544 40
1889.....	1,963,123	1910.....	2,348,269 50
1890.....	2,009,637	1911.....	2,419,178 20
1891.....	1,806,389	1912.....	2,842,877 00
		1913.....	2,674,686 70
Carried forward	\$19,379,564	1914.....	2,755,293 10
		Total	62,280,304 60

STATEMENT

of the number and value of the Tugs, Gasoline, Sail and Row Boats, Nets, Spears, &c., used in the Fishing Industry of the Province of Ontario, during the year 1914.

	Number.	Value.
		\$ c.
Tugs (2,545 tons)	133	509,250 00
Gasoline Launches.....	407	145,540 00
Sail and Row Boats	1,639	111,199 00
Gill-Nets.....	5,069,804 yards.	414,093 35
Seines (30,952 yds).....	155	12,294 00
Pound-Nets.....	788	346,155 00
Hoop-Nets.....	884	27,005 00
Dip and Roll Nets.....	272	708 80
Baited Hooks	89,525	3,430 95
Spears	190	308 20
Freezers and Ice-Houses.....	445	139,075 00
Piers and Wharfs.....	127	42,580 00
Total		1,751,639 30

Number of men employed on Tugs.....	646
Gasoline	904
Sail and Row Boats.....	2,526
	4,076



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Asst. Bailie, Jr.

June 18, 1931

Government
Publications

Tenth Annual Report

OF THE

GAME AND FISHERIES DEPARTMENT

1916

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

Printed and Published by A. T. WILGRESS, Printer to the King's Most Excellent Majesty

1917

Tenth Annual Report

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1917

Printed by
WILLIAM BRIGGS
Corner Queen and John Streets
TORONTO

To His Honour SIR JOHN STRATHEARN HENDRIE, K.C.M.G., C.V.O., a Colonel in the Militia of Canada, etc., etc., etc.

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Tenth Annual Report of the Department of Game and Fisheries of this Province.

I have the honour to be,
Your Honour's most obedient servant,

F. G. MACDIARMID,

Minister of Public Works and Highways.

TORONTO, 29th March, 1917.



TENTH ANNUAL REPORT

OF THE

Department of Game and Fisheries of Ontario

To the Honourable F. G. MACDIARMID,

Minister of Public Works and Highways.

SIR,—I have the honour to submit for your consideration the Tenth Annual Report of the Department of Game and Fisheries, which is for the fiscal year ended October 31st, 1916.

The catch of fish this year was quite satisfactory even if it did not reach the enormous amount caught the year before. The herring catch was indeed good and as the Great Lakes of Ontario are the only waters in Canada where fresh water herring can be procured, great care should be exercised in their preservation. Requests are being continually made to reduce the size of mesh. This, I think, would be a great mistake and would, in the near future, lead to the practical extermination of this valuable food fish. Hatcheries should also be established to propagate this species for they apparently thrive when given a chance in waters suitable for their existence. The whitefish and salmon trout seem to be on the increase, no doubt owing to the large quantities of spawn deposited each year from the hatcheries. It will be interesting to watch the result of the abolishing of the close seasons for these species. The Department feels discouraged at times from the lack of co-operation with a certain number of the fishermen, who seem bent upon catching fish by any means if allowed, regardless of the consequences, and since the abolishing of the close season they are constantly applying for licenses to set nets in waters that are well known to have shoals where these fish spawn.

The demand for fish by the public has increased considerably owing to the high cost of meat, and there should be a means of lessening the expenses of living. The residents of Ontario have not been educated to the use of this food, and strange to say that in many places, villages and towns inland, only a few miles from some of our principal fishing ports, will have several butcher shops and the residents never see a fresh fish from the beginning to the end of the year save those caught by hook and line in the nearby streams.

PROVINCIAL HATCHERIES.

The erection of a hatchery begun at Normandale last year was unavoidably delayed but will be completed this season and will be most efficiently equipped for the purpose of hatching whitefish and herring.

The hatchery at Mount Pleasant where the raising of bass and speckled trout is carried on for restocking the inland lakes and streams was not so successful this year owing to the heavy rains in the spring which caused turbid waters resulting in a considerable loss to the speckled trout fry and delay in procuring the parent bass for the bass ponds, notwithstanding these difficulties the result of the hatch was very satisfactory and the superintendent of this hatchery should be commended for overcoming difficulties that he before never had to contend with.

GAME.

Following suggestions made in last year's report, some amendments to the Act were made by the Legislature during the session of 1916. One of these amendments provided for a trapper's license, and the other for an open season for beaver and otter, being the first open season for these animals in twenty years.

The introduction of the trapper's license will, I believe, prove acceptable to the great majority of the trappers of the Province, many of them having asked to have all trappers placed under license with a suitable fee attached. In drafting the amendment, however, it was thought advisable to exempt farmers and farmers' sons when trapping upon their own lands.

In providing for an open season for beaver and otter, it was provided that they should be taken only during such periods and upon such terms and conditions as might be prescribed by the Lieutenant-Governor in Council.

The result of these two amendments to the Act are not available for this report, the trapping season not opening until after the end of our fiscal year.

The treaty between Great Britain and the United States regarding both migratory game and non-game birds is still under consideration, but will likely be completed during the year. When this treaty is signed there is no doubt it will require some changes in our Act in order to comply with its provisions.

The amendment prohibiting the purchase or sale of wild ducks, wild geese or other waterfowl has, I believe, met with general approval.

As in past years I cannot close without thanking the Superintendent of Provincial Police and his officers for the assistance rendered the Department during the year.

D. McDONALD,

Acting Deputy Minister of Game and Fisheries.

January 8, 1917.

D. McDONALD, Esq.,

Acting Deputy Minister of Game and Fisheries, Toronto, Ont.

SIR,—When this barbarous world wide war ends, enforced strenuous conservation will be imperative. It may seem inconsistent to advocate conservation of our resources while the old world powers are destroying the world's most valuable assets, the lives of the inhabitants of their respective countries. When the despicable barbarians are relegated to restricted confines of their despised country, we, as an important part of the glorious Empire on which the sun never sets, should be prepared by a most rigid system of conservation, not only to make our Province, as far as possible, self-sustaining, but also to enable our Dominion to meet its immense obligations and provide for our brave fellow Canadians and their dependants unable to provide for themselves. We are more directly concerned with the natural products of our Department and the conservation and perpetuation of the same. While your Department has under difficult conditions succeeded in conserving fish in Provincial waters, whom are we conserving it for? As far as I know we are under no obligation to protect our fish for American consumption. In consequence of the present high price of meat, a far larger amount of fish caught in the waters of the Province should be available for home consumption. Tug fishermen, who as a rule ship their entire catch to their headquarters in Buffalo and other United States receiving stations, should be compelled to pay a royalty on all

such shipments. Many of these fish exporting fishermen, boasting of their loyalty and patriotism during these strenuous times, should be made to practise what they preach.

LAWS AND THEIR ENFORCEMENT.

The relaxation in the game laws for the time being by the thoughtful kindness of the Government will be a much appreciated boon to the unfortunate settlers in the fire swept northern parts of the Province.

HUNTING.

Ducks and big game shooting has furnished the principal sport this season. The fact that both of these were found in numbers great enough to satisfy the sportsmen will also be satisfactory to you.

Submitted by,

Your obedient servant,

E. TINSLEY,
Superintendent.

D. McDONALD, Esq.,

Acting Deputy Minister of Game and Fisheries.

SIR,—I beg to submit my annual report for 1916.

I understand that commercial fishermen have had an exceedingly poor year. especially the Hoop Net fishermen. I would again recommend that all commercial fish buyers be compelled to take out a license, and that they be compelled to supply the home markets before exporting any fish of any kind. The tourist traffic during the past year was the lightest in years, caused, no doubt, by the terrible war. Many of the tourist hotels did not open in 1916.

I find on investigation that owing to the sudden lowering of the waters by order of the Dominion officials, in the early spring sometimes after the bass and maskinonge have spawned, that large quantities of spawn are left on the shores and which are wasted. This has happened on the Rideau waters, also on the Kawartha Lakes. Some arrangements should be made between the two governments that the waters should not be either raised or lowered during the spawning seasons. I understand that game of all kind was fairly plentiful in the season of 1916. Prohibiting the sale of ducks and limiting the number to be killed is having a good effect.

ALFRED HUNTER,
Inspector of Game and Fisheries.

BEAUMARIS, 31 Oct., 1916.

To Acting Deputy Minister, Game and Fisheries, Toronto.

SIR,—I beg to submit my annual report as to the game and fish in that portion of the Province over which I have the supervision. During the past season fishermen have met with varied success. Since the very hot weather in July anglers have secured very fine catches of bass. These fish seem to be holding their own in the Muskoka waters, and with the liberal restocking which has been carried on with fry from the hatcheries we may look forward to a vast increase in years to come. About six million of pickerel fry have been placed in the Muskoka Lakes by the parties who operate the Port Carling hatchery. These parties are worthy of the highest praise for the trouble they took and the expense they are put to for the public good.

The change in the close season for lake trout and whitefish is going to have most beneficial effects with regard to the increase in these classes of fish.

During the hunting season of 1915 sportsmen seemed to have had satisfactory results. There is no doubt but that the cutting down the number of deer to one for each man has resulted in the keeping up of the stock, which does not seem to have appreciably failed within the past few years. Moose are not so plentiful, and I think the Department will soon see the advisability of protecting these noble animals for a term of years. Had it not been for the illegal killing of these animals there would have been an unlimited supply.

Partridges are scarce and the two years protection enacted will no doubt bring about anticipated results.

Beaver, I am most pleased to see, are coming in this fall. We have had more trouble over these animals during the past year than all other game combined. There have been innumerable complaints from settlers who have had their meadows flooded, municipalities and private parties whose roads or other property has been damaged by the work of these animals. In all cases where complaints have reached us we have successfully combatted the evil, either by trapping out the beaver or dynamiting their dams. In resorting to the latter resource, permanent success has not always resulted, as we have found the dams reconstructed in a few days in several instances. Wolves are reported very numerous in several Muskoka municipalities. I have only heard of one of these marauders having been killed.

Regarding "insectivorous" birds, I noted a marked increase during the last spring in several varieties, especially robins. I have no doubt that the legislation enacted in several of the United States, coupled with our Ontario Act, will help in time to replace the depletion of these feathered songsters.

All of which is respectfully submitted.

I am, Sir,

Your obedient servant,

JOHN H. WILLMOTT,
Warden.

D. McDONALD, Esq.,

Acting Deputy Minister of Game and Fisheries, Toronto, Ont.

NORTH BAY, ONT., November 3rd, 1916.

DEAR SIR,—I have the honour of submitting my annual report for the year 1916.

Fishing has been exceptionally good this season, many fine specimens of maskinonge were caught in Lake Nipissing and French River. The opening up of several inland lakes for net fishing has proved a success in supplying the local markets.

There was an increase in the number of tourists visiting this district this year, many of them reporting very favourably on their catches.

Game: Moose, plentiful in some parts, but the fires have destroyed many of them, in one place eleven were found dead together. Caribou, none in this locality.

Deer, quite plentiful. Partridge, very scarce, but no doubt the two years close season will have the desired effect. Wild duck, plentiful. Wild geese, scarce. Plover and snipe appear to be increasing.

Fur-bearing Animals: Beaver, plentiful and causing considerable damage to roads and private properties. The open season is quite desirable. Otter and mink appear plentiful, also muskrat. The close season for rats in the fall will no doubt be a success, as many of the young rats are trapped in the fall when the fur is of little value. All other fur-bearing animals appear to be quite plentiful, which is due to the small amount of trapping done during the past two years.

Wolves appear to be increasing in number.

The licensing of trappers is already meeting with marked success, but it will take time to get the people educated to the idea.

I would again like to recommend a general gun license. I notice a remarkable increase in the number of hunters from the older parts of Ontario, if this continues something will have to be done to further preserve our game in the north country. Our forests are fast disappearing, what with fires, settlers and lumbering, and I think a provision should be made for a new game preserve at an early date.

I would also like to recommend that hunters be allowed a limited time in which to reach their camps, I consider that three days from the time they detrain is quite sufficient, it is a common occurrence for many clubs to go in seven and eight days before the season, and in many cases I am satisfied that a large amount of game is killed before the season opens.

There have been a number of convictions during the past year; many violations, I am pleased to say, were reported by residents of the rural districts, who are beginning to realize the necessity of protecting our game.

Your obedient servant,

G. M. PARKS,
Warden.

SAULT STE. MARIE, Nov. 13th, 1916.

D. McDONALD,

Acting Deputy Minister of Game and Fisheries Department, Toronto.

Commercial fishing: In the early part of the season the fishing was light in Lake Superior and Lake Huron on the north shore, but the fishermen report better catches in the month of October and they say that when the full returns are in that the catch for the season will be better than for 1915.

Speckled trout are plentiful in all the rivers and streams in this district.

Bass of all kinds are plentiful in this district.

Pickereel are not as plentiful as I would like to see them.

Whitefish and salmon trout are very plentiful in some of the inland lakes in this district. I would say that net fishing should be allowed for two or three years in those lakes.

Brown trout are plentiful in most of the inland lakes.

Rainbow trout are increasing in Lake Superior.

Maskinonge are very scarce in the District of West Algoma.

Pike and suckers are getting more plentiful every year in the inland lakes and the bays of Lake Superior.

GAME ANIMALS.

Deer are plentiful in this district.

Moose are plentiful in this district, but would say that the hunting season should be from the 15th of November to the last of November, with no extension of the open season.

Caribou; there is none in this district; would say that the Department should stock Michipicoten Island with caribou, it is one of the best places in this district that I know to have these animals as no hunters can get to them in the winter. It is a big island with lots of feed for a big herd.

Ducks and all water fowl are scarce in this district.

Grouse and partridge are scarce in this district.

Rabbits are more scarce this season than they have been for years.

Black squirrels; none in this district.

Wild turkeys; none in this district.

Woodcock; none in this district.

Beaver very plentiful all over the district.

Mink; scarce in this district.

Muskrats; scarce in this district.

Otter; not plentiful.

The law has been well observed throughout this district. There have been some violations, but the parties have been punished. The patrol service on the lake has not been of much service this year only to make expenses of one cause or another. We should have a better patrol outfit on this end of Lake Superior than we have at the present time to be of any service in looking after the fisheries.

J. T. ROBINSON,

Warden.

SIMCOE, ONTARIO, 30th Oct., 1916.

D. McDONALD, ESQ.,

Acting Deputy Minister of Game and Fisheries, Toronto, Ontario.

SIR,—I have the honour to submit my report for 1916.

Speckled Trout: These fish are decreasing in the streams of this district, and I would advise more fry being planted in the future so as to keep up the supply, as the brooks of the County of Norfolk are particularly well adapted for the propagation of this game fish.

Bass: The bass fishing at Long Point Bay has been the best for a number of years, and the size is still increasing every year.

Commercial Fish: The fishermen report that the gill net fishing has been good. The seines have been successful. The experiments with the carp ponds continue to be successful, the fishermen being able to catch the carp when they are plentiful and at low price and preserve them in the pond until the fish are scarce and the price high. The carp in Long Point Bay have very much increased in number and the price during the year has been much higher than ever before, so that this coarse fish is now one of the best paying commercial fish.

Quail and Ruffed Grouse: The quail are still very scarce in this district, the number being practically the same as last report. Ruffed grouse are very scarce and are decreasing in number more than they have for a number of years.

Woodcock: These are still very scarce, but are reported to be slowly increasing in number.

Black Squirrels: There has been a decided increase in number of these squirrels. The sportsmen attribute this to the short season that they are allowed to be shot.

Wild Geese: These birds continue to be very scarce, although a few are seen at Long Point.

Wild Ducks: Long Point district continues to have more ducks than formerly. The black duck, mallard and pin tail are very numerous, an increased number of black duck and wood ducks have bred in the marshes about Long Point Bay, and it has been reported that some young broods of pin tail ducks were seen. The canvasbacks, redhead and blue bills seem to be here in about as large numbers as usual.

Fur-bearing Animals: Muskrats continue to rate the highest among these animals in this district. Trappers report a very good catch last spring. This is attributed to the fact that some of the companies and others owning marshes prohibited the trapping in their marshes during the previous season, leaving a larger breeding herd than usual in the marshes.

The game laws in this district have been well observed, the Deputy Wardens and Overseers have performed their duties well, so that there have been very few complaints of the infringement of the laws.

I have the honour to be, Sir,

Your obedient servant.

W. BURT,
Game and Fisheries Warden.

WINDSOR, Nov. 23rd, 1916.

D. McDONALD, Esq.,

Acting Deputy Minister of Game and Fisheries:

SIR,—I have the honour to submit my annual report.

During the year I have visited the greatest part of my district and also patrolling all the waters of Lake Erie in my district, and Detroit River, Lake St. Clair, River St. Clair and small portion of Lake Huron, with yacht *Hopewell*, which I approve a good success for game and fisheries protection. I also sold more permits to Americans to fish with hook and line than any other years. For the Detroit River I have sold over eight hundred dollars worth. The angling of the Detroit River has been better this year than the years I know of. Perch and pickerel has been caught by great numbers of anglers. Black bass also being good for angling this year around Lake Erie and Lake St. Clair, and Mitchell Bay. The net fishermen had a fair year of fishing. The carp has not been caught very plentiful. The catch of other fish is about the same. The whitefish in Lake Erie and Detroit River is showing very fair now. On account of the big blow last month the fishermen through Lake Erie have fished about half of their number of nets, so I expect their catch of whitefish might be small. I think the Government should built hatcheries for hatching herring on Lake Erie. I think they are decreasing.

In regard to game: Quail has been reported by farmers and sportsmen being increasing in numbers. The field trail have found plenty of birds to work their dogs a couple of weeks ago. The Hungarian partridge are also reported doing well, our home partridge not increasing any in Essex and Kent County. Woodcock are about the same as previous year. English pheasant are not plentiful except around Pelee Marsh, there are a few around there. Snipe was very scarce last fall around Lake Erie, Detroit River, Lake St. Clair and Mitchell Bay. There have been more varieties of ducks this fall than we have seen for many years. The sportsmen have got good shooting this fall. Wild geese about the same as other years, except on the reserve of Jack Miner; they are more than any other year. it is a good reason for the way he feeds them and protects them. The Government should give him all the protection to assist him to protect these birds. It would show what a person could do by being kind to the wild game. Black and grey squirrels in Essex County are very scarce, and there should be a closed season on them. In Kent and Lambton Counties they are more plentiful. There should be a bag limit per day and not allowed to sell them. Muskrats are plentiful, and I am pleased to hear that there is a trap license and a short season for trapping. And the trappers seem to be pleased with the new regulation.

The game and fish laws have been very well observed during the year past. Very few seizures or prosecutions happened last year. The Deputy Wardens and Overseers have performed their duty well towards me to give assistance and information towards the poachers and other matters.

Your obedient servant,

V. CHAUVIN,
Warden.

TORONTO, Dec. 7th, 1917.

D. McDONALD, ESQ.,

Acting Deputy Minister of Game and Fisheries.

SIR,—I beg to submit my report for the season of 1916.

The past season proved to be the worst that was ever experienced by both the licensed fishermen and anglers around Toronto. Were it not for the formerly despised carp none of the licensed fishermen would have made half a decent living. With the advent of the trunk sewer it was expected that the fishing would improve and that the fish would return to their old haunts, but up to the present there has been no apparent increase, the sewer has stopped the pollution and if restocking with lake trout and whitefish fry was carried out on a liberal scale the fishing might be brought back to something like what it was in old times.

The game and fishery laws were well observed, very few infractions of the act occurred. Both the Island constables and the city police deserve the thanks of the Department for the interest they take and the work they do in the protection of the fish and game.

The majority of returning deer hunters say they found the deer about as plentiful as ever, but all report the partridge as very scarce, and unless next spring turns out a more favourable breeding season than the last it will require another year of protection to get up anything like a good stock of birds.

With reference to the restocking of the waters of the Province with game fish by the Department, am sorry to report that the results in a great many instances are not at all what they should be, and unless means are taken, before the young fish are planted, to rid the waters of the ling and other coarse fish that infest them the results can never be expected to be any better. The waters can be made fairly safe for the young fish if the destruction of their enemies is gone about in a business-like way.

The output of the bass ponds and brook trout hatchery at Mt. Pleasant was not quite as large as last year, owing to the unprecedented heavy and incessant rains during the months of April, May and June, the source of the water supply became polluted and proved fatal to a great number of the young trout that had just hatched out. It did not affect the young bass in the ponds. The output about equalled last year's, which was a record. The same calamity can never occur again owing to the wisdom and energy of Superintendent Edwards, he having unearthed a supply of pure spring water on the hatchery property which has been piped direct to the hatchery from its source and adds immensely to the value of the property as a hatchery proposition.

The Ontario Government fish hatchery at Mt. Pleasant is to-day one of the beauty spots of the Province, transformed from a rough swamp bottom all through indefatigable efforts of Superintendent J. T. Edwards.

Yours respectfully,

HENRY WATSON,
Warden.

MOHAWK, Dec. 5th, 1916.

D. McDONALD, Esq.,

Acting Deputy Minister of Game and Fisheries.

DEAR SIR,—I beg to submit the following, my eighth annual report, in connection with my work at the Mt. Pleasant hatchery.

We were again very successful in propagating small mouth black bass, which is the most important species of fish propagated at this hatchery, the output of which was greatly in excess of that of any former year, and totalled nearly one million fingerlings, which were successfully transplanted and the different waters restocked receiving a substantial supply, which should thereby greatly improve the fishing in them if they are allowed to mature.

BROOK TROUT.

The output of brook trout was not quite up to that of last year, which was no fault of ours, but was caused by continued rains, thereby polluting our supply of spring water. A new supply of water has been installed and better results may be looked for in future.

LAKE TROUT.

Five hundred thousand lake trout from the Wiarton hatchery, which were in excellent condition, were also successfully transplanted.

RESTOCKING.

Mr. Henry Watson, Special Officer for Restocking, again had charge of that important duty and good results may shortly be looked for.

CONSTRUCTION WORK.

Some 900 feet of riprapping was done this season, and as no stone was available in this vicinity, cement blocks were made and laid in their stead. Between 1,800 and 1,900 feet of piping was also put down, thus connecting a new supply of spring water to be used for hatching trout. A dike was also built to guard against flood in spring time.

FISH CAR.

Fish car "Beaver" had a good appearance since its having been newly painted. The courtesy and assistance rendered by the different railway officials was all that could be desired.

THE HATCHERY.

The hatchery again presented a fine appearance, the flowers and grounds were greatly admired by the many thousands who visited the hatchery this season.

There is still room for another bass pond. If help is available would recommend its construction this coming season.

In closing this report I desire to extend my warmest thanks for the cordial assistance and hearty co-operation received at the hands of your Department during the year.

I remain,

Your obedient servant.

J. T. EDWARDS,
Superintendent.

OUTPUT OF FISH FROM THE MOUNT PLEASANT HATCHERY, IN DETAIL.

No. 1 Fingerlings.

Cameron Lake, Peterborough County	70,000
Balsam Lake, Peterborough County	80,000
Lake Simcoe, County of York, South Shore	100,000
Lake Simcoe, County of York, North Shore	100,000
Fox Lake, Parry Sound	5,000
Dalhousie Lake, Lanark County	10,000
Gull Lake, Frontenac County	30,000
Clear Lake, Frontenac County	30,000
Sharbot Lake, Frontenac County	75,000
Burritt's Rapids, Grenville County	30,000
Brown's Lake, Peterborough County	25,000
Stoco Lake, Hastings County	30,000
Moir Lake, Peterborough County	30,000
Cole's Lake, Frontenac County	30,000
Mississippi Lake, Lanark County	70,000
Bass Lake, North Simcoe County	25,000
Riley's Lake, District of Muskoka	25,000
Muskoka Lake, District of Muskoka	50,000
Joseph Lake, District of Muskoka	50,000
Cache Lake, Algonquin Park	15,000
Clear Lake, South Renfrew County	20,000
Total Fingerlings	900,000

PARENT BASS.

River Neeth, Brant County	300
Cache Lake, Algonquin Park	150
Total Parent Bass	450

BROOK TROUT FRY.

No. 2 Fingerlings.

Trout Fry, Waters Vicinity Simcoe, Norfolk County	30,000
Sauble River, Grey County	25,000
Mad River, South Simcoe County	25,000
Pine River, South Simcoe County	40,000

LAKE TROUT FRY.

Smoke Lake, Algonquin Park	80,000
Cache Lake, Algonquin Park	120,000
Lake of Bays, Muskoka District	100,000
Rideau Lakes, Leeds County	100,000
Charlton Lake, Leeds County	60,000
Goold Lake, Frontenac County	40,000
Total Fry	500,000

LAKE TROUT FINGERLINGS..

Sharbot Lake, Frontenac County	30,000
Burritt's Rapids, Grenville County	20,000
Total Fingerlings	50,000
Bass Fingerlings	900,000
Parent Bass	450
Brook Trout Fry	30,000
Brook Trout Fingerlings	90,000
Lake Trout Fry	500,000
Lake Trout Fingerlings	50,000

Grand Total 1,570,450

J. T. EDWARDS.

WATERS STOCKED FROM 1901 TO 1916, WITH NUMBER AND KINDS OF
FISH PLANTED IN EACH.—Continued.

1916.

Waters Stocked and Location.	Species.	Number.
Cameron Lake, Peterborough County	Bass Fingerlings	70,000
Balsom Lake " "	" "	80,000
Brown Lake " "	" "	25,000
Moria Lake " "	" "	30,000
Simcoe Lake, County of York	" "	200,000
Bass Lake, Simcoe County, North	" "	25,000
Fox Lake, Parry Sound District	" "	5,000
Dalhousie Lake, Lanark County	" "	10,000
Mississippi Lake " "	" "	70,000
Gull Lake, Frontenac County	" "	30,000
Clear Lake " "	" "	30,000
Sharbot Lake " "	" "	75,000
Cole's Lake " "	" "	30,000
Burritt's Rapids, Grenville County	" "	30,000
Stoco Lake, Hastings County	" "	25,000
Riley's Lake, Muskoka District	" "	50,000
Muskoka Lake " "	" "	50,000
Joseph Lake " "	" "	20,000
Clear Lake, Renfrew County, South	" "	15,000
Cache Lake, Algonquin Park	Trout Brook Fry	30,000
Waters vicinity of Simcoe, Norfolk County	" " Fingerlings	25,000
Mad River, Simcoe County South	" " "	40,000
Pine River " " "	" " "	25,000
Sauble River, Grey County	Parent Bass	150
Cache Lake, Algonquin Park	" "	300
Neeth River, Brant County	Trout Lake Fry	80,000
Smoke Lake, Algonquin Park	" " "	120,000
Cache Lake " "	" " "	100,000
Lake of Bays, Muskoka District	" " "	100,000
Rideau Lakes, Leeds County	" " "	60,000
Charlston Lake " "	" " "	40,000
Goold Lake, Frontenac County	" " Fingerlings	30,000
Sharbot Lake " "	" " "	20,000
Burritt's Rapids, Grenville County		
	Total Bass Fingerlings.	900,000
	" Parent Bass	450
	" Brook Trout Fry.	30,000
	" " " F'ger'gs	90,000
	" Lake Trout Fry.	500,000
	" " " F'ger'gs	50,000
	Grand Total	1,570,450

Statement showing the number of fry distributed in the waters of the Province
by the Federal Government from Dominion hatcheries.

Years.	Newcastle.	Sandwich.	Ottawa.	Warton.	Sarnia.	Total.
1868-73.....	1,070,000	.....	.....	.....	.....	1,070,000
1874.....	350,000	.....	.....	.....	.....	350,000
1875.....	650,000	.....	.....	.....	.....	650,000
1876.....	700,000	8,000,000	.....	.....	.....	8,700,000
1877.....	1,300,000	8,000,000	.....	.....	.....	9,300,000
1878.....	2,605,000	20,000,000	.....	.....	.....	22,605,000
1879.....	2,602,700	12,000,000	.....	.....	.....	14,603,700
1880.....	1,923,000	13,500,000	.....	.....	.....	15,423,000
1881.....	3,300,000	16,000,000	.....	.....	.....	19,300,000
1882.....	4,841,000	44,000,000	.....	.....	.....	48,841,000
1883.....	6,053,000	72,000,000	.....	.....	.....	78,053,000
1884.....	8,800,000	37,000,000	.....	.....	.....	45,800,000
1885.....	5,700,000	68,000,000	.....	.....	.....	73,700,000
1886.....	6,451,000	57,000,000	.....	.....	.....	63,451,000
1887.....	5,130,000	56,500,000	.....	.....	.....	61,630,000
1888.....	8,076,000	56,000,000	.....	.....	.....	64,076,000
1889.....	5,846,500	21,000,000	.....	.....	.....	26,846,500
1890.....	7,736,000	52,000,000	5,732,000	.....	.....	65,468,000
1891.....	7,807,500	75,000,000	7,043,000	.....	.....	89,850,500
1892.....	4,823,500	44,500,000	4,909,000	.....	.....	54,232,500
1893.....	9,835,000	68,000,000	6,208,000	.....	.....	84,043,000
1894.....	6,000,000	47,000,000	4,480,000	.....	.....	57,480,000
1895.....	6,000,000	73,000,000	3,210,000	.....	.....	82,210,000
1896.....	5,200,000	61,000,000	3,950,000	.....	.....	70,150,000
1897.....	4,200,000	72,000,000	4,100,000	.....	.....	80,300,000
1898.....	4,325,000	71,000,000	3,020,000	.....	.....	78,345,000
1899.....	4,050,000	73,000,000	3,700,000	.....	.....	80,750,000
1900.....	5,175,000	90,000,000	3,450,000	.....	.....	98,625,000
1901.....	5,900,000	67,000,000	3,410,000	.....	.....	76,310,000
1902.....	650,000	100,000,000	1,245,000	.....	.....	101,895,000
1903.....	2,500,000	90,000,000	1,201,000	.....	.....	93,701,000
1904.....	1,475,000	75,000,000	877,000	.....	.....	77,352,000
1905.....	1,480,000	106,000,000	1,103,000	.....	.....	108,583,000
1906.....	1,550,000	88,000,000	1,123,000	.....	.....	90,673,000
1907.....	1,807,000	103,000,000	1,152,000	.....	.....	105,959,000
1908.....	2,600,000	79,000,000	2,010,000	4,955,000	51,000,000	139,565,000
1909.....	1,881,000	66,500,000	1,575,000	8,100,000	159,500,000	237,556,000
1910.....	1,520,400	76,000,000	1,478,000	12,088,000	74,000,000	165,086,400
1911.....	1,543,816	77,000,000	.....	12,249,500	113,500,000	204,293,316
1912.....	1,599,716	29,000,000	.....	12,399,900	77,000,000	119,999,616
1913.....	2,207,500	59,000,000	.....	8,556,800	94,000,000	.....
1914.....	.....	65,000,000	.....	6,796,000	120,000,000	.....
1915.....	.....	63,000,000	.....	8,948,356	72,000,000	.....
Totals...	517,264,632	2,359,000,000	64,976,000	74,093,556	761,000,000	.....

Years.	Collingwood.	Thurlow.	Port Arthur.	Southampton	Kenora.	Total
1913.....	50,000,000	.....	32,112,950	6,957,000	.....	252,834,250
1914.....	46,800,000	46,500,000	32,482,700	2,372,000	71,370,000	391,320,700
1915.....	50,500,000	65,687,000	42,226,000	6,434,750	129,331,200	438,127,306
Grand Totals	146,500,000	112,187,000	106,821,650	15,763,750	200,701,200	3,999,107,788

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1915, in the Public

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Kenora and Rainy River.</i>			\$			\$			\$			\$
1	Lake of the Woods.....	4	90	6 650	4	27	9,685	49	24	1,221	38	45,000	5,340
2	Crow, Oneman, Sandy and Lawrence Lakes.....					7	1,950	13	5	345	8	14,000	1,290
3	Lac Suele, Elephant, Abraham, Otter, Minnitakie, and Clay Lakes.....					3	650	4	5	330	7	9 600	981
4	Hilley, Vermilion, Eagle, Indian and Isabester Lakes.....								1	50	2	7,900	575
5	Canyon, Manitou, Orang Outang and Wabigoon Lakes.....					1	150	2	1	20	2	8,500	650
6	Deer, Gull and Trout Lakes.....					1	100	2	2	90	4	2,800	275
7	Rainy Lake.....					24	7,855	47	18	360	31	36,400	3,540
8	Height of Land, Loon, Pipestone, Clearwater and Tuttle Lakes.....					1	150	7	4	120	8	10,800	1,125
9	Namaken, Pickerel, Jackfish, and Calm Lakes.....					3	865	7	7	120	12	4,400	285
	Totals.....	4	90	6,650	4	67	21,405	131	67	2,656	112	139,400	14,061

Return of the kinds, quantities and values of fish caught during the

Number.	District.	Herring, salted.		Herring, fresh.		Whitefish, salted.		Whitefish, fresh.		Trout, salted.		Trout, fresh.		Pike.		Pickerel or Dore.	
		brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.
	<i>Kenora and Rainy River.</i>																
1	Lake of the Woods.....						572,033				34,196		759,851		857,107		
2	Crow, Oneman, Sandy and Lawrence Lakes.....						137,297				17,942		80,603		120,401		
3	Lac Suele, Elephant, Abraham, Otter, Minnitakie and Clay Lakes.....						41,204				8,332		23,463		18,874		
4	Hilley, Vermilion, Eagle, Indian and Isabester Lakes.....						20,541				10,615		11,992		8,761		
5	Canyon, Manitou, Orang Outang and Wabigoon Lakes.....						13,290				8,840		81,080		700		
6	Deer, Gull and Trout Lakes.....						5,880				1,900		11,850		3,440		
7	Rainy Lake.....						513,438				4,578		217,202		106,192		
8	Height of Land, Loon, Pipestone, Clearwater and Tuttle Lakes.....						9,250				4,800		10,582		6,688		
9	Namaken, Pickerel, Jackfish and Calm Lakes.....						36,691				1,550		25,319		41,572		
	Totals.....						1,349,624				92,753		1,221,942		1,163,735		
	Values.....						\$ c.		\$ c.		\$ c.		\$ c.		\$ c.		\$ c.
							134,962 40				9,275 30		97,755 36		116,373 50		

FISHERIES.

Quantity and value of all fishing materials and other fixtures employed in the fishing Waters of Kenora and Rainy River District.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....			32	10 550	4	160	.....		.....		.....		10	7,250	11	2,170
.....													5	1,050	5	300
.....													4	500	3	325
.....													1	150	.....
.....					2	100	.....						1	400	1	50
.....			8	2,100									11	1,650	1	100
.....													2	200	.....
.....			5	1,000									3	250	.....
.....			45	13,650	6	230	.....						37	11,430	21	2,945

year 1915, in the Public Waters of Kenora and Rainy River Districts.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
62 310	48,974	6,840	169,064	109,024	188,320	1,340	1,211	121	243,731 38
.....	10,580	.....	28,200	.....	2,000	9,000	.....	.....	36,839 04
.....	.....	.....	100	.....	.....	1,900	.....	.....	8,819 04
.....	.....	.....	5,733	750	.....	3,300	.....	.....	5,520 04
.....	.....	500	21,000	2,000	.....	1,500	.....	.....	10,289 40
4,879	.....	685	30,478	6,856	.....	800	.....	.....	2,658 48
.....	.....	.....	.....	.....	.....	35,575	171	.....	85 338 99
.....	.....	.....	600	.....	.....	4,000	60	.....	3,216 36
18,450	.....	.....	6,935	.....	.....	4,065	258	.....	13,651 67
85,629	59,554	7,975	262,110	118,630	190,320	81 480	1,700	121	410,054 40
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
12,815 85	3,573 24	398 75	15,726 60	9,490 40	3,806 40	4,074 00	1,700 00	72 60	410,054 40

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake Superior

Fishing Material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
				\$										\$		\$
			6	1,100									3	150	4	350
			18	3,400									5	950	7	750
			15	3,675									2	600		
													6	1,050	5	325
													1	100	1	50
													1	25	3	155
													1	200	1	50
			6	3,000									3	900	3	500
			12	6,000									3	3,000	2	1,000
													1	500	4	1,000
			57	17,175									26	7,475	30	4,180

during the year 1915, in the Public Waters of Lake Superior.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
150					1,400	227 2,000			105,847 15 139,883 20
9,678						200	16		60,542 26
			900			1,500			4,429 82
									7,318 00
			300						15,268 40
									13 928 50
2,110						8,000			757 70 14 926 50
4,110		300	1,850			25,080			51,292 00
			5,025 839			119,411			106,173 85 25,507 64
						650			4 426 40
16,048		300	8,914		1,400	157,068	16		550,301 42
\$ c. 2,407 20	\$ c. 15 00	\$ c. 534 84	\$ c.		28 00	\$ c. 7,853 40	16 00		\$ c. 550,301 42

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1915, in the

Fishing material.													
Number.	District.	Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value
	Lake Huron, North Channel.			\$		\$			\$				\$
1	Thessalon.....					4	1,900	-9	8	310	9	29,500	1,430
2	Cutler Bay, Buswell's Point, Burnt Island, and Algoma Mills.....	2	51	11,000	9	4	1,950	4	5	205	3	14,600	920
3	Spanish.....	1	9	800	2	2	1,000	4	10	370	10	28,100	1,630
4	Spragge, Blind River, John's and Cedar Islands.....					1	300	2	7	245	11	17,000	990
5	Bruce Mines, Nesterville, Chibleau Lake and St. Joseph's Island..								7	190	6	7,700	400
6	Grant Island, Kesel Lake, Brimon Harbour, French Island and Echo Bay.....					1	400	2	3	100	3	2,800	595
7	Flat Point, Patrick Point and Joliette Island.....					3	1,800	9	2	150			
8	Mudge Bay and Killarney.....					7	2,410	16	9	690	18	63,600	2,675
9	Fitzwilliam Island, Sheguandah Bay and Bayfield Sound.....	1	16	3,000	5	4	2,250	11	3	190	7	33,500	2,912
10	Manitowaning Bay, Providence and Gore Bays.....	2	21	2,500	8	1	500	3	5	205	7	2,300	110
11	Meldum, Partridge, Julia and Wekwemikong Bays.....					1	500	3	3	130	4	62,200	2,147
12	Little Current, Mississauga Straits and Tamarack Cove.....	4	98	19,000	17	2	375	4	1	50	2	102,000	7,100
13	Heywood, Bedford, Strawberry and Cockburn Islands.....					4	1,095	8	8	400	14	51,500	2,710
14	South Bay, Squaw Island and Kagawong.....	9	172	28,100	44	1	500	2	6	465	12	493,000	53,805
15	Rouse and Duck Islands.....	1	24	7,000	6	5	2,675	13	1	30	1	108,400	11,130
16	Rabbit, Centre Islands and Graudine Point.....					3	1,300	7	1	35	2	6,500	565
	Totals.....	20	391	71,400	91	43	18,955	97	79	3,765	109	1,022,700	69,119

Return of the kinds, quantities and values of fish caught during

Number.	District.	Herring, salted.		Herring, fresh.		Whitefish, salted.		Whitefish, fresh.		Trout, salted.		Trout, fresh.		Pike.		Pickarel, or Dore.	
		brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.
	<i>Lake Huron, North Channel.</i>																
1	Thessalon.....		600				36,178			1	27,991		2,831		3,320		
2	Cutler Bay, Buswell's Point, Burnt Island and Algoma Mills.....	34	26,069				7,222		17,246		7,690		128,424		30,256		
3	Spanish.....	92	10,257				3,765		11	10,815		17,526					
4	Spragge, Blind River, John's and Cedar Islands.....	12	648				3,616		2	5,185		7,783			388		
5	Bruce Mines, Nesterville, Chibleau Lake and St. Joseph's Island..						7,590		1	12,352		3,006			2,581		
6	Grant Island, Kesel Lake, Brimon Harbour, French Island and Echo Bay.....		320				6,101		6,272		60		461				
7	Flat Point, Patrick Point and Joliette Island.....		1,000				23,263		29,256		2,740		47,167		20,110		
8	Mudge Bay and Killarney.....				10		128,133		41,433		12,988						
9	Fitzwilliam Island, Sheguandah Bay and Bayfield Sound.....						34,491		36	92,326		5,033			2,369		
10	Manitowaning Bay, Providence and Gore Bays.....						36,062		6	161,458		8,819			16,051		
11	Meldrum, Partridge, Julia and Wewkamikong Bays.....						39,384		86,295				200				
12	Little Current, Mississauga Straits and Tamarack Cove.....			2			25,890		4	191,851		5,748			39,115		
13	Heywood, Bedford, Strawberry and Cockburn Islands.....			1			14,881		8	62,334		13,528			11,446		
14	South Bay, Squaw Island and Kagawong.....		486		90		259,340		110	509,490		4,474			2,564		
15	Rouse and Duck Islands.....						740			463,696		1,500					
16	Rabbit, Centre Islands and Graudine Point.....						19,903			7,240		7,110			17,834		
	Totals.....	138	39,380	103			656,459		179	1,725,232		101,836			332,602		
	Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		1,380 00	1,969 00	1,030 00	65,645 90	1,790 00	172,523 20	8,146 88	33,260 20								

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the Public Waters of Lake Huron, North Channel.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
			4	1,000									3	400	1	100
			12	3,300									6	1,700	4	2,700
			6	1,200									5	575	1	100
													3	225		
			3	600									1	100	1	100
			4	1,000	1	20							1	250	1	250
			20	7,400									2	1,000	3	1,600
			5	4,000									1	300	1	1,500
			13	4,500					3,900	150			2	1,000	2	1,200
			18	6,000									3	700	3	1,800
			5	2,000									3	1,200	3	2,000
			13	5,800									3	600	3	1,550
			3	900									1	100		
			8	6,000									3	5,400	6	1,900
			8	5,000									1	500	2	500
			8	3,300												
			130	52,000	1	20			3,900	150			44	14,050	31	15,300

the year 1915, in the Public Waters of Lake Huron, North Channel.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and Coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
411		464				20,902			8,145 33
6,410		514				53,037	7	248	22,343 70
1,328		550	3,283			34,325	6		9,580 46
61		1,082				4,663	4		2,014 34
		642				23,273			3,858 83
161		100				22,331			2,450 05
12,412				292		68,985	150		16,722 41
222		2,646		1,050	5	1,857	260		20,709 19
91		570				15,102			14,478 49
1,310		35	4,986	27		40,547			24,649 84
185		190							12,615 15
2,221		500				75,224			30,354 79
1,139						33,685			11,812 44
25		8,664	4,025			18,611			81,130 62
400		191	40,000			2,756			49,170 95
1,099		35		27		10,217			5,746 11
27,475		16,183	52,394	1,396	5	425,518	427	248	315,782 70
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	c.	\$ c.	\$ c.	\$ c.	\$ c.
4,121 25	809 15	3,143 64	111 68		10	21,275 90	427 00	148 80	315,782 70

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1915,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Georgian Bay.</i>			\$			\$			\$			\$
1	Byng Inlet.	1	25	5,000	5	3	400	7	5	130	6	69,510	7,200
2	Parry Sound	5	119	18,000	22	6	2,000	10	8	675	12	283,600	15,690
3	Waubauskene .....			.....					25	4,105	33	52,900	4,180
4	Penetanguishene.....			.....		1	300	2	5	136	11	24,150	1,215
5	Collingwood	1	25	4,000	5	13	3,150	23	4	330	6	112,700	5,140
6	Meaford and Owen Sound Bay..	4	113	17,500	16	13	9,150	32	12	590	16	262,040	12,550
7	Colpoys's Bay and Tobermory....	1	24	4,000	5	30	12,385	66	34	2,420	67	119,275	6,382
	Totals.....	12	306	48,500	53	66	27,385	140	93	8,386	151	924,175	52,357

Return of the kinds, quantities and values of fish caught

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Georgian Bay.</i>								
1	Byng Inlet	305	300	300	108,867		29,752	38,417	57,366
2	Parry Sound			2	215,916	8	251,041	5,410	8,261
3	Waubauskene	5		810	4,800	277	2,100	33,900	19,500
4	Penetanguishene	27	1,975	14	5,680	74	15,850	256	149
5	Collingwood		19,500		22,335		82,362		
6	Meaford and Owen Sound Bay..		11,800		27,400	425	433,532		
8	Colpoys Bay and Tobermory....	124	65,494	204	7,427	2,878	573,652	400	102
	Totals.....	461	99,069	1,330	392,425	3,662	1,388,289	75,383	85,378
	Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		4,610 00	4,953 45	13,300 00	39,242 50	36,620 00	138,828 90	6,270 64	8,537 80

quantity and value of all fishing materials and other fixtures employed in the fishing in the Public Waters of the Georgian Bay.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
			8	2,700									7	1,950	6	975
1	100	90			25	483							7	1,950	1	100
														75		
									7,800	560			7	3,100	5	900
			1	350					20,800	1,940			6	560	11	925
1	100	90	9	3,050	25	483			28,600	2,500			22	5,685	23	2,900

during the year 1915, in the Public Waters of the Georgian Bay.

Sturgeon.	Eels.	Perch.	Tulibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	NC	\$
1,685		2,107				F. 200	100		29,454 96
.....		6,910			1,700	.....	.....		48,088 60
43				8,675	13,250	37,504	30		19,491 70
4,400		2,000	1,050		600	2,100	775		3,506 58
.....									13,096 70
			41,964			790			50,933 20
									96,037 64
6,128		11,017	43,014	8,675	15,550	45,504	905		260,599 38
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
919 20	550 85	2,580 84	694 00	311 00	2,275 20	905 00			260,599 38

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1915.

Fishing material.													
Number.	District.	Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
Lake Huron (Proper).													
1	Tobermory to Southampton	8	155	22,900	41	7	2,350	18	28	2,640	52	296,871	25,603
2	Southampton to Pine Point	1	21	3,000	6	2	750	4	2	80	4	80,000	2,410
3	County of Huron	1	5	2,000	.....	9	4,850	21	8	1,085	18	91,600	5,580
4	County of Lambton (including River St. Clair)	2	2	600	.....	17	6,215	27	37	3,003	56	.....	.....
Totals		12	183	28,500	47	35	14,165	70	75	6,818	130	468,471	33,593

Returns of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickered, or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake Huron (Proper).</i>								
1	Tobermory to Southampton	398	29,350	25	7,585	447	483,629	.....	21
2	Southampton to Pine Point	3	10,300	.....	900	.....	122,050	150	.....
3	County of Huron .....	.....	19,210	.....	10,910	40	167,083	.....	19,668
4	County of Lambton (including River St. Clair)	4	163,011	.....	32,464	500	14,855	59	148,294
	Totals	405	221,871	25	51,859	987	787,617	209	167,983
	Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		4 050 00	11,093 55	250 00	5,185 90	9,870 00	78,761 70	16 72	16,798 30

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Huron (Proper).

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
			2	300					5,200	215			5	2,550	1	25
			8	2,250									2	250		
													10	1,155	3	150
6	370	430	54	15,750									25	800	2	1,100
6	370	430	64	18,300			9	31	5,200	215			42	4,755	6	1,275

during the year 1915, in the Public Waters of Lake Huron (Proper).

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
44		8,900	263,306		5	2,000			75,641 06
1,645		1,900			200				12,951 00
		142,810	6,543			25,487	70		30,250 18
10,917		8,048		16	10,809	53,330	912	13	38,600 28
12,606		161,658	269,849	16	11 014	80,817	982	13	157,443 12
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,890 90		8,082 90	16,190 94	1 28	220 28	4,040 85	082 00	7 80	157,443 12

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1915,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake St. Clair.</i>						\$			\$			\$
1	Kent County (including River Thames)					23	6,500	36	26	1,290	32	.....	.....
2	Essex County					30	7,100	56	57	2,065	68	.....	.....
3	Detroit River.....					2	3,300	6	37	1,137	97	.....	.....
	Totals.....					55	16,900	98	120	4,492	197	.....	.....

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.		Herring, fresh.		Whitefish, salted.		Whitefish, fresh.		Trout, salted.		Trout, fresh.		Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	<i>Lake St. Clair.</i>														
1	Kent County (including River Thames)													20,733	16,524
2	Essex County					200	22,200							14,550	18,175
3	Detroit River.....						21,500							10,360	2,690
	Totals.....					200	43,700							54,643	37,389
	Values					\$ c. 2,000 00	\$ c. 4,370 00							\$ c. 4,371 44	\$ c. 3,738 90

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake St. Clair.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
13	3,900	1,285	....	.....	101	5,575	6	128	800	550	.....	.....	16	3,695	8	1,600
19	3,850	1,180	10	2,600	68	3,505	.....	.....	2,500	188	.....	.....	18	6,200	.....	.....
38	4,551	2,059	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	83
70	12,301	4,524	10	2,600	169	9,080	6	128	3,300	738	.....	.....	34	9,895	11	1,683

during the year 1915, in the Public Waters of Lake St. Clair.

Sturgeon.	Eels	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
4,565	60,178	.....	36,808	205,170	178,276	.....	.....	23,686 53
29,400	48,485	.....	29,220	201,230	181,550	1,067	.....	30,542 45
150	3,953	.....	240	257,170	23,795	.....	.....	9,820 30
34,115	112,616	.....	66,268	663,570	383,621	1,067	.....	64,049 28
\$ c.	\$ c.	\$ c.		\$ c.	\$ c.	\$ c.	\$ c.		\$ c.
5,117 25	5,630 80	.....	5,301 44	13,271 40	19,181 05	1,067 00	.....	64,049 28

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the fishing industry during the year 1915,

Number.	District.	Fishing material.												
		Tugs				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.		
		No.	Ton- nage.	Value	Men.	No.	Value	Men.	No.	Value.	Men.	Yards.	Value.	
	<i>Lake Erie.</i>			\$		\$		\$				\$	c.	
1	Pelee Island.....	4	133	24,000	28	9	3,750	35	15	547	21	92,700	8,714	00
2	Essex County.....	1	37	5,000	4	48	26,460	103	24	3,845	18	22,000	2,300	00
3	Kent County, West.....	2	61	1,300	14	29	12,650	63	8	475	2	120,000	6,000	00
4	Kent County, East.....					24	9,250	77	1	20				
5	Elgin County, West.....	2	23	17,000	12	17	7,400	57	6	290	2	107,172	7,190	00
6	Elgin County, East.....	20	668	140,550	100	11	9,550	28	4	850	6	729,800	67,050	00
7	Norfolk County.....	10	234	62,000	37	8	4,100	31	80	3,240	191	244,900	17,453	00
8	Haldimand County (to and in- cluding the Grand River).....	11	275	60,900	50	17	8,500	51	25	430	27	189,420	31,127	00
9	Port Maitland to Port Colborne.....								10	290	11			
10	Port Colborne to Niagara Falls.....					3	800	4	13	518	15	19,750	1,368	60
	Totals.....	50	1,431	310,750	275	166	82,460	449	186	10,505	293	1,526,642	141,202	60

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel, or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake Erie.</i>								
1	Pelee Island.....		288,841		150,062			1,627	26,947
2	Essex County.....		148,465		313,325		11	383,441	126,915
3	Kent County, West.....		283,084		154,488				100,031
4	Kent County, East.....		162,036		41,905			23,898	51,983
5	Elgin County, West.....		245,724		104,571			36,013	139,900
6	Elgin County, East.....		1,785,090		612,748		15	11,025	6,828
7	Norfolk County.....		1,180,409		248,355		1,484	115,757	95,281
8	Haldimand County (to and in- cluding the Grand River).....		1,478,627		306,399		873	45,416	52,670
9	Port Maitland to Port Colborne.....							45	6,500
10	Port Colborne to Niagara Falls.....		1,412		290			13,228	655
	Totals.....		5,573,688		1,832,243		2,333	630,450	607,710
	Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
			278,684.40		183,224.30		238.30	50,436.00	60,771.00

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Erie.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
3	800	185	50	8,850	.....	.....	.....	.....	925	25	.....	.....	1	1,250	2	5,000
7	1,400	530	191	80,650	.....	.....	.....	.....	.....	.....	.....	.....	23	10,025	3	225
1	75	35	101	57,900	.....	.....	.....	.....	.....	.....	.....	.....	22	35,000	10	3,100
5	2,000	525	79	35,700	.....	.....	.....	.....	.....	.....	.....	.....	19	9,100	5	250
.....	.....	.....	91	39,350	.....	.....	.....	.....	.....	.....	.....	.....	8	4,150	8	10,100
.....	.....	.....	23	8,800	.....	.....	2	11	.....	.....	.....	.....	11	7,000	5	3,800
44	16,400	6,525	23	6,900	.....	.....	.....	.....	1,200	25	.....	.....	21	10,670	12	1,375
4	295	210	49	17,500	.....	.....	9	60	.....	.....	.....	.....	18	3,765	11	1,300
.....	.....	.....	.....	.....	.....	.....	.....	.....	4,610	49.50	.....	.....	.....	.....	.....	.....
1	35	20	.....	.....	.....	.....	.....	.....	2,500	31.25	.....	.....	.....	.....	.....	.....
65	21,005	8,030	607	255,650	.....	.....	11	71	9,235	130.75	.....	.....	123	80,960	56	25,150

during the year 1915, in the Public Waters of Lake Erie.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue).	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	bs.	\$ c.
7,934	174,843	.....	2,592	58,196	91,258	260	.....	305,193	78,918 84
7,778	137,126	1,240	8,805	195,100	353,254	981½	622	395,640	153,408 88
2,021	185,162	.....	.....	1,320	88,822	32	.....	845,901	138,256 95
1,812	133,277	.....	2,465	271,099	84,121	61½	.....	805,187	116,743 52
1,392	75,305	.....	2,199	162	44,362	101	456	380,645	84,423 25
1,088	102,868	.....	7,638	90	66,958	47½	.....	1,265,354	287,945 84
4,120	175,749	19,860	13,737	335,553	136,661	158	.....	393,827	167,573 85
20,860	54,017	.....	1,000	43,230	57,711	560	117	404,002	154,249 23
1,990	5,500	92	.....	82,933	9,612 40
7,330	3,744	.....	.....	130	19,911	567½	24	3,630	4,463 34
56,315	1,042,091	21,100	38,436	904,880	948,558	2,861½	1,219	4,882,312	1,195,596 03
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	731.40	\$ c.	\$ c.
8,447.25	52,104.55	1,206.00	3,074.88	18,097.60	47,427.90	2,851.25	731.40	488,231.20	1,195,596 03

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1915,

Numbre.	District.	Fishing material.												
		Tugs				Gasoline Launches.			Sail or Row Boats.			Gill- Nets.		
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.	
	Lake Ontario.			\$			\$			\$			\$	c.
1	Lincoln County.....	18				6,310		35	7	230	7	97,325	5,991	00
2	Wentworth County.....	7				2,225		16	18	497	27	52,100	5	100 00
3	Halton County.....	17				4,950		34	2	175	4	95,800	4,700	00
4	Peel County.....	3				1,300		5				1,400	1,750	00
5	York County.....	7				2,930		14	2	100	4	34,200	2,812	50
6	Ontario County.....	2				550		4	4	90	6	8,400	890	00
7	Durham County.....	1				250		2	5	90	5	3,440	66	00
8	Northumberland County.....	10				3,100		19	28	1,095	43	65,695	3,640	00
9	Prince Edward County.....	56				14,875		106	111	3,772	180	314,325	13,871	50
10	Bay of Quinte (Proper).....	4				640		6	165	5,608	252	74,400	4,324	50
11	Bay of Quinte (Eastern Channel).....	20				3,910		35	57	1,466	73	106,100	4,850	00
12	Wolfe Island and Vicinity).....	12				3,430		31	35	1,430	56	34,500	1,425	00
	Totals	157				44,470		307	434	14,653	657	887,685	49,420	50

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickrel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake Ontario.</i>								
1	Lincoln County.....	10	625,857		30,800		7,300		52,361
2	Wentworth County.....		376,500		30,740		3,070	67,240	1,360
3	Halton County.....		216,250		16,800		26,000		
4	Peel County.....	7	85,000		7,000		17,450		
5	York County.....		25,602		28,635		12,500	100	10
6	Ontario County.....		817		15,300		1,200	253	
7	Durham County.....		2,877		12,000		500		
8	Northumberland County.....	48½	24,410	1	45,305		56,686	67,902	
9	Prince Edward County.....	21	127,072	5	305,128		289,204	42,213	1,315
10	Bay of Quinte (Proper).....	6½	216,106	29	154,138			164,107	27,909
11	Bay of Quinte (Eastern Channel).....	2½	5,900	2	151,572		111,409	3,600	1,730
12	Wolfe Island and Vicinity.....			3	12,200	10	24,800	21,573	1,280
	Totals.....	95½	1,706,391	40	809,618	23	550,769	366,988	85,965
	Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		957 50	85,319 55	400 00	80,961 80	230 00	55,076 90	29,359 04	8,596 50

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats fishing industry during the year 1915,

Number.	District.	Fishing Material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Inland Waters.</i>			\$			\$			\$			\$ c.
1	Frontenac County					6	1,175	6	49	935	63	1,580	127 00
2	Lanark and Leeds Counties.....					46	12,875	47	85	3,106	129	30	2 50
3	Renfrew, Carleton, Grenville, Prescott and Stormont Counties					4	650	6	88	835	88	1,700	52 00
4	Lake Simcoe					3	2,300	3	14	405	18		
5	Nipissing and Timiskaming Dis- tricts.....					1	600	4	9	700	11	6,650	887 00
	Totals.....					60	17,600	66	245	5,981	309	9,960	1,068 50

Return of the kinds, quantities and values of fish caught

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Tout, fresh.	Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Frontenac County.. ..							26,294	
2	Lanark and Leeds Counties.....				600			18,527	
3	Renfrew, Carleton, Grenville, Prescott and Stormont Counties							2,352	603
4	Lake Simcoe		521		7,001		31,947		397
5	Nipissing and Timiskaming Dis- tricts.....		1,815		8,110		1,900	11,912	10,045
	Totals.....		2,336		15,711		33,847	59,085	11,045
	Values	\$ c.	\$ c.	\$ c.	\$ c.		\$ c.	\$ c.	\$ c.
			116 80		1,571 10		3,384 70	4,726 80	1,104 50

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the
in the public waters of Inland Waters.

Fishing Material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$ c.		\$		\$ c.		\$		\$		\$
10	145	191	.....		75	2,705 00	.....						2	150	1	25
2	40	45	.....		238	4,610 60	.....		4,200	118 00	.....		2	150	3	225
2	400	300	.....		13	153 00	8	17	10,785	203 10	.....		2	60	.....
			.....				.....		5,250	97 00	195	751 25	52	1,050	2	200
			3	375	3	75 00	.....						4	590	.....
14	555	536	3	375	239	7,543 60	8	17	20,235	418 10	195	751 25	62	2,000	6	450

during the year 1915, in the public waters of Inland Waters.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
.....	16,890	711	.....	85,229	.....	160,620	.....	.....	18,001 79
4,360	13,956	3,988	.....	73,775	300	171,059	.....	.....	17,693 87
5,680	2,385	2,610	.....	4,666	1,903	30,280	22	3	3,323 20
.....	.....	10,136	.....	.....	116,637	63,197	.....	.....	9,959 94
1,575	35	1,725	5,600	2,700	.....	19,859	.....	.....	4,918 76
11,615	33,266	19,170	5,600	166,370	118,840	445,015	22	3	53,697 56
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,742 25	1,995 96	958 50	336 00	13,509 60	2,376 80	22,250 75	22 00	1 80	53,897 56

ONTARIO

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats.
industry during

Number	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
			\$			\$			\$			\$ c.	
1	Kenora & Rainy River Dist..	4	90	6,650	4	67	21,405	131	67	2,656	112	139,400	14,061 00
2	Lake Superior.....	20	317	56,850	118	17	7,650	41	104	7,310	169	916,310	51,935 00
3	Lake Huron (North Channel)	20	391	71,400	91	43	18,955	97	79	3,765	109	1,022,700	69,119 00
4	Georgian Bay.....	12	306	48,500	53	66	27,385	140	93	8,386	151	924,175	52,357 00
5	Lake Huron (Proper)	12	183	28,500	47	35	14,165	70	75	6,818	130	468,471	33,593 00
6	Lake St. Clair, etc.....					55	16,900	98	120	4,492	197		
7	Lake Erie.....	50	1,431	310,750	275	166	82,460	449	186	10,505	293	1,526,642	141,202 60
8	Lake Ontario.....					157	44,470	307	434	14,653	657	887,685	49,420 50
9	Inland Waters.....					60	17 600	66	245	5,981	309	9 960	1 068 50
	Totals.....	118	2,718	522,650	588	666	250,990	1,399	1403	64,566	2,127	5,895,343	412,756 60

Recapitulation of the kinds, quantities and values

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickeral or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Kenora and Rainy River District.....				1,349,624		92,753	1,221,942	1,163,735
2	Lake Superior.....	2,234½	2,776,900	690	841,980	3,896½	1,645,278	70,876	179,961
3	Lake Huron (North Channel).....	138	39,380	103	656,459	179	1,725,232	101,836	332,602
4	Georgian Bay.....	461	99,069	1,330	392,425	3,662	1,888,289	78,383	85,678
5	Lake Huron (Proper).....	405	221,871	25	51,859	987	787,617	209	167,923
6	Lake St. Clair, etc.....			200	43,700			54,643	37,389
7	Lake Erie.....		5,573,688		1,832,245		2,388	630,450	607,710
8	Lake Ontario.....	55½	1,701,391	40	809,618	23	550,769	336,988	85,965
9	Inland Waters.....		2,336		15,711		33,847	59,005	11,045
	Totals.....	3,334½	10,419,635	2,388	5,993,619	14,747½	6,226,168	2,584,412	2,671,763
	Values.....	\$ 33,342 50	\$ 520,981 75	\$ 23,880 00	\$ 599,361 90	\$ 147,475 00	\$ 622,616 80	\$ 206,752 96	\$ 267,176 80

FISHERIES.

the quantity and value of all fishing material and other fixtures employed in the fishing the year 1915.

Fishing material.—Continued.														Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.		
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	
		\$		\$		\$ c.		\$		\$ c.		\$ c.		\$		\$	
.....	.....	.....	45	13,650	6	260 00	.....	.....	.....	.....	.....	.....	37	11,430	21	2,945
.....	.....	.....	57	17,175	.....	.....	.....	.....	.....	.....	.....	.....	26	7,475	30	4,180
.....	130	52,000	1	20 00	3,900	150 00	44	14,050	31	15,300
1	100	90	9	3,050	25	483 00	28,600	2,500 00	22	5,685	23	2,900
6	370	430	64	18,300	9	31	5,200	215 00	42	4,755	6	1,275
70	12,301	4,524	10	2,600	169	9,080 00	6	128	3,300	738 00	34	9,895	11	1,683
65	21,005	8,030	607	255,650	.....	.....	11	71	9,235	130 75	.....	.....	123	80,960	56	25,150
19	1,163	506	.....	.....	566	11,015 00	.....	.....	28,400	813 30	224	336 00	276	7,065	11	855
14	555	536	3	375	239	7,543 60	8	17	20 235	418 10	195	751 25	62	2,000	6	450	
175	35,494	14,116	925	362,800	1006	28,401 60	34	247	98,870	4,965 15	419	1,087 25	666	143,315	195	54,838	

of fish caught during the year 1915.

Sturgeon.	Eels	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue)	Herring Smoked.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	\$ c.
85,639	59,554	7,975	262,110	118,630	190,320	81,480	1,700	121	.....	.....	410,054 40
16,048	.....	300	8,914	.....	1,400	157,068	16	.....	.....	.....	550,301 42
27,475	.....	16,183	52,394	1,396	5	425,518	427	248	.....	.....	315,782 70
6,128	.....	11,017	43,014	8,675	15,550	45,504	905	.....	.....	.....	260,599 38
12,606	.....	161,658	269,849	16	11,014	80,817	982	13	.....	.....	157,443 12
34,115	.....	112,616	.....	66,218	663,570	383,621	1,067	.....	.....	.....	64,049 28
56,315	.....	1,042,091	21,100	38,436	904,880	948,858	2,861 1/2	1,219	4,882,312	.....	1,195,506 03
1,521	219,703	119,310	.....	267,698	112,518	438,684	.....	.....	.....	75,800	333,457 52
11,615	33,266	19,170	5,600	166,370	118,840	445,015	22	3	.....	.....	53,897 56
251,462	312,523	1,490,320	662,981	667,489	2,018,097	3,006,265	7,980 1/2	1,604	4,882,312	75,800	3,341,181 41
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ 1,	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
7,719 30	18,751 38	74,516 00	39,778 86	53,399 12	40,361 94	150,313 25	7,980 25	962 40	488,231 20	7,580 00	3,341,181 41

Comparative Statement of yield for 1914-15, according to Districts.

	1914.	1915.	Increase.	Decrease.
Kenora and Rainy River District:				
Herring.....bbls.				
Herring.....lbs.	150			150
Whitefish.....bbls.	995,041	1,349,624	354,583	
Whitefish.....lbs.				
Trout.....bbls.	161,713	92,753		68,960
Trout.....lbs.	760,554	1,221,942	461,388	
Pike....."	922,968	1,163,735	240,767	
Pickrel (Dore)....."	95,804	85,639		10,165
Sturgeon....."		59,554	59,554	
Eels....."	500	7,975	7,475	
Perch....."	127,133	262,110	134,977	
Tullibee....."	66,420	118,630	52,210	
Catfish....."	124,730	190,320	65,590	
Carp....."	163,860	81,480		82,380
Mixed and Coarse fish....."	1,685	1,700	15	
Caviare....."	93½	121	27½	
Sturgeon Bladders.....No.				
Lake Superior:				
Herring.....bbls.	1,915	2,234½	319½	
Herring.....lbs.	781,935	2,776,900	1,994,965	
Whitefish.....bbls.	313	690	377	
Whitefish.....lbs.	337,564	841,980	504,416	
Trout.....bbls.	690	9,896½	9,206½	
Trout.....lbs.	1,438,842	1,645,278	206,436	
Pike....."	201,287	70,876		130,411
Pickrel (Dore)....."	129,307	179,961	50,654	
Sturgeon....."	8,502	16,048	7,546	
Eels....."				
Perch....."	150	300	150	
Tullibee....."	7,453	8,914	1,461	
Catfish....."	3,460			3,460
Carp....."		1,400	1,400	
Mixed and Coarse fish....."	26,022	157,068	131,046	
Caviare....."		16	16	
Sturgeon Bladders.....No.				
Lake Huron, North Channel:				
Herring.....bbls.	145	138		7
Herring.....lbs.	12,047	39,380	27,333	
Whitefish.....bbls.	4	103	99	
Whitefish.....lbs.	716,696	656,459		60,237
Trout.....bbls.	68	179	111	
Trout.....lbs.	1,503,678	1,725,232	221,554	
Pike....."	126,096	101,836		24,260
Pickrel (Dore)....."	408,464	332,602		75,862
Sturgeon....."	30,428	27,475		2,953
Eels....."				
Perch....."	14,909	16,183	1,274	
Tullibee....."	91,821	52,394		39,427
Catfish....."	2,055	1,396		659
Carp....."	1,416	5		1,411
Mixed and Coarse fish....."	491,697	425,518		66,179
Caviare....."	303	427	124	
Sturgeon Bladders.....No.		248	248	
Georgian Bay:				
Herring.....bbls.	239	461	222	
Herring.....lbs.	35,254	99,069	63,815	
Whitefish.....bbls.	391	1,330	939	
Whitefish.....lbs.	415,803	392,425		23,378

Comparative Statement of yield for 1914-15, according to Districts—Continued.

	1914.	1915.	Increase.	Decrease.
Georgian Bay—Continued:				
Trout.....bbls....	558	3,662	3,104	
Trout.....lbs....	835,776	1,388,289	552,513	
Pike....."	74,044	78,383	4,339	
Pickarel (Dore)....."	67,828	85,378	17,550	
Sturgeon....."	6,823	6,128		695
Eels....."				
Perch....."	6,806	11,017	4,211	
Tullibee....."	19,500	43,014	23,514	
Catfish....."	2,924	8,675	5,751	
Carp....."	2,500	15,550	13,050	
Mixed and Coarse Fish....."	51,560	45,504		6,056
Caviare....."	1,026	905		121
Sturgeon Bladders.....No....	300			300
Lake Huron (proper):				
Herring.....bbls....	468	405		63
Herring.....lbs....	163,372	221,871	58,499	
Whitefish.....bbls....	39	25		14
Whitefish.....lbs....	61,808	51,859		9,949
Trout.....bbls....	319	987	668	
Trout.....lbs....	669,604	787,617	118,013	
Pike....."	1,064	209		855
Pickarel (Dore)....."	191,190	167,983		23,207
Sturgeon....."	14,459	12,606		1,853
Eels....."	50			50
Perch....."	115,223	161,658	46,435	
Tullibee....."	367,648	269,849		97,799
Catfish....."	161	16		145
Carp....."	10,006	11,014	1,008	
Mixed and coarse fish....."	103,840	80,817		23,023
Caviare....."	1,435 $\frac{3}{4}$	982		453 $\frac{3}{4}$
Sturgeon Bladders.....No....	25	13		12
Lake St. Clair, etc.:				
Herring.....bbls....				
Herring.....lbs....				
Whitefish.....bbls....		200	200	
Whitefish.....lbs....	46,600	43,700		2,900
Trout.....bbls....				
Trout.....lbs....				
Pike....."	62,840	54,643		8,197
Pickarel (Dore)....."	46,213	37,389		8,824
Sturgeon....."	40,965	34,115		6,850
Eels....."	8,450			8,450
Perch....."	283,640	112,616		171,024
Tullibee....."				
Catfish....."	78,370	66,268		12,102
Carp....."	1,027,675	663,570		364,105
Mixed and coarse fish....."	1,115,380	383,621		731,759
Caviare....."	1,719	1,067		652
Sturgeon Bladders.....No....				
Lake Erie:				
Herring.....bbls....				
Herring.....lbs....	5,981,542 $\frac{1}{2}$	5,573,688		407,854 $\frac{1}{2}$
Whitefish.....bbls....				
Whitefish.....lbs....	1,992,618	1,832,243		160,375
Trout.....bbls....	18			18
Trout.....lbs....	2,494	2,383		111
Pike....."	2,926,797	630,450		2,296,347
Pickarel (Dore)....."	2,085,829	607,710		1,478,119

Comparative Statement of yield for 1914-15, according to Districts—Continued.

	1914.	1915.	Increase.	Decrease.
Lake Erie.—Continued:				
Sturgeon.....lbs.....	56,266	56,315	49	
Eels.....".....	74			74
Perch.....".....	1,407,984	1,042,091		365,893
Tullibee.....".....	254,297	21,100		233,197
Catfish.....".....	49,092	38,436		10,656
Carp.....".....	1,395,118	904,880		490,238
Mixed and coarse fish.....".....	861,614	948,558	86,944	
Caviare.....".....	2,683½	2,861¾	178½	
Sturgeon Bladders.....No.....	319	1,219	900	
Pickarel (Blue).....lbs.....		4,882,312	4,882,312	
Lake Ontario:				
Herring.....bbls.....	313½	95¾		218
Herring.....lbs.....	991,406	1,706,391	714,985	
Whitefish.....bbls.....	1,413½	40		1,373½
Whitefish.....lbs.....	515,537	809,618	294,081	
Trout.....bbls.....	163	23		140
Trout.....lbs.....	600,364	550,769		49,595
Pike.....".....	248,023	336,988	88,965	
Pickarel (Dore).....".....	64,251	85,965	21,714	
Sturgeon.....".....	150	1,521	1,371	
Eels.....".....	299,913	219,703		80,210
Perch.....".....	105,428	119,310	13,882	
Tullibee.....".....	1,980			1,980
Catfish.....".....	268,613	267,698		915
Carp.....".....	81,478	112,518	31,040	
Mixed and Coarse fish.....".....	348,785	438,684	89,899	
Caviare.....".....				
Sturgeon Bladders.....No.....				
Herring, Smoked.....lbs.....	120,192	75,800		44,392
Inland Waters:				
Herring.....bbls.....	9			
Herring.....lbs.....	14,812	2,336		12,476
Whitefish.....bbls.....	1½			
Whitefish.....lbs.....	21,057	15,711		5,346
Trout.....bbls.....				
Trout.....lbs.....	4,765	33,847	29,082	
Pike.....".....	25,126	59,085	33,959	
Pickarel (Dore).....".....	1,215	11,045	9,830	
Sturgeon.....".....	765	11,615	10,850	
Eels.....".....	39,023	33,266		5,757
Perch.....".....	18,987	19,170	183	
Tullibee.....".....	300	5,600	5,300	
Catfish.....".....	117,573	166,370	48,797	
Carp.....".....	146,752	118,840		27,912
Mixed and Coarse fish.....".....	301,758	445,015	143,257	
Caviare.....".....		22	22	
Sturgeon Bladders.....No.....	100	3		

Comparative Statement of the yield of the Province.

	1914	1915	Increase.	Decrease.
Herring.....bbls.....	3,089½	3,334½	245½	
Herring.....lbs.....	7,980,368½	10,419,635	2,439,267	
Whitefish.....bbls.....	2,312	2,388	76	
Whitefish.....lbs.....	5,102,724	5,993,619	890,895	
Trout.....bbls.....	1,812	14,747½	12,935½	
Trout.....lbs.....	5,217,236	6,226,168	1,008,932	
Pike.....“.....	4,425,829	2,584,412		1,841,417
Pickereel (Dore).....“.....	3,917,265	2,671,768		1,245,497
Sturgeon.....“.....	254,162	251,462		2,700
Eels.....“.....	347,510	312,523		34,987
Perch.....“.....	1,953,627	1,490,320		463,307
Tullibee.....“.....	870,132	662,981		207,151
Catfish.....“.....	588,668	667,489	78,821	
Carp.....“.....	2,789,675	2,018,097		771,578
Mixed and Coarse fish.....“.....	3,464,516	3,006,265		458,251
Caviare.....“.....	8,852½	7,980½		872
Herring, smoked.....“.....	120,192	75,800		44,392
Pickereel (Blue).....“.....		4,882,312	4,882,312	
Sturgeon Bladders.....No.....	837½	1,604	766½	
Total Barrels.....	7,213½	20,469½		
Total Pounds.....	37,040,756¾	41,270,831½		
Total Increase of Barrels.....1915			13,256½	
Total Increase of Pounds.....1915			4,230,075½	

Statement of the yield and value of the Fisheries of the Province for the year 1915.

Kinds of Fish.	Quantity.	Price.	Value.
		\$ c.	\$ c.
Herring.....bbls.....	3,334½	10 00	33,342 50
Herring.....lbs.....	10,419,635	05	520,981 75
Whitefish.....bbls.....	2,388	10 00	23,880 00
Whitefish.....lbs.....	5,993,619	10	599,361 90
Trout.....bbls.....	14,747½	10 00	147,475 00
Trout.....lbs.....	6,226,168	10	622,616 80
Pike.....“.....	2,584,412	08	206,752 96
Pickereel (Dore).....“.....	2,671,768	10	267,176 80
Sturgeon.....“.....	251,462	15	37,719 30
Eels.....“.....	312,523	06	18,751 38
Perch.....“.....	1,490,320	05	74,516 00
Tullibee.....“.....	662,981	06	39,778 86
Catfish.....“.....	667,489	08	53,399 12
Carp.....“.....	2,018,097	05	40,361 94
Mixed and Coarse Fish.....“.....	3,006,265	05	150,313 25
Caviare.....“.....	7,980½	1 00	7,980 25
Sturgeon Bladders.....No.....	1,604	60	962 40
Pickereel (Blue).....lbs.....	4,882,312	10	488,231 20
Herring, smoked.....“.....	75,800	10	7,580 00
Total.....			3,341,181 41

Value of Ontario Fisheries from 1870 to 1915, inclusive.

Year.	Value.	Year.	Value.
	\$		\$ c.
		Brought forward	21,421,762 00
1870.....	264,982	1893.....	1,694,930 00
1871.....	193,524	1894.....	1,659,968 00
1872.....	267,633	1895.....	1,584,473 00
1873.....	293,091	1896.....	1,605,674 00
1874.....	446,267	1897.....	1,289,822 00
1875.....	453,194	1898.....	1,433,631 00
1876.....	437,229	1899.....	1,477,815 00
1877.....	438,223	1900.....	1,333,293 00
1878.....	348,122	1901.....	1,428,078 00
1879.....	367,133	1902.....	1,265,705 00
1880.....	444,491	1903.....	1,535,144 00
1881.....	509,903	1904.....	1,793,524 00
1882.....	825,457	1905.....	1,708,963 00
1883.....	1,027,033	1906.....	1,734,865 00
1884.....	1,133,724	1907.....	1,935,024 90
1885.....	1,342,692	1908.....	2,100,078 63
1886.....	1,435,998	1909.....	2,237,544 41
1887.....	1,531,850	1910.....	2,348,269 57
1888.....	1,839,869	1911.....	2,419,178 21
1889.....	1,963,123	1912.....	2,842,877 09
1890.....	2,009,637	1913.....	2,674,686 76
1891.....	1,806,389	1914.....	2,755,293 11
1892.....	2,042,198	1915.....	3,341,181 41
Carried forward	\$21,421,762	Total	65,621,486 09

STATEMENT

of the number and value of the Tugs, Gasoline, Sail and Row Boats, Nets, Spears, &c., used in the Fishing Industry of the Province of Ontario, during the year 1915.

	Number.	Value.
		\$ c.
Tugs (2,718 tons)	118	522,650 00
Gasoline Launches	666	250,990 00
Boats (Sail or Row)	1,403	64,566 00
Gill-Nets	5,895,343 yards	412,756 60
Seines (35,494 yds)	175	14,116 00
Pound-Nets	925	362,800 00
Hoop-Nets	1,006	28,401 60
Dip or Roll Nets	34	247 00
Night Lines	98,870	4,965 15
Spears	419	1,087 25
Freezers and Ice-Houses	666	143,315 00
Piers and Wharves	195	54,838 00
Total		1,860,732 60

Number of men employed on Tugs	588
Gasoline Launches	1,399
Sail and Row Boats	2,127
	4,114

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Jas. G. Baillie W

June 18, 1931

Government
Publications

Eleventh Annual Report

OF THE

GAME AND FISHERIES DEPARTMENT

1917

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1918

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TORONTO



His Honour SIR JOHN STRATHEARN HENDRIE, K.C.M.G., C.V.O., a Colonel in
the Militia of Canada, etc., etc., etc.

Lieutenant-Governor of the Province of Ontario.

AY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour
and the Legislative Assembly, the Eleventh Annual Report of the Department of
Game and Fisheries of this Province.

I have the honour to be,

Your Honour's most obedient servant,

F. G. MACDIARMID,
Minister of Public Works and Highways.

TORONTO, 23rd February, 1918.

ELEVENTH ANNUAL REPORT

OF THE

Department of Game and Fisheries of Ontario

To the Honourable F. G. MACDIARMID,

Minister of Public Works and Highways.

SIR,—I have the honour to submit for your consideration the Eleventh Annual Report of the Department of Game and Fisheries, which is for the fiscal year ended October 31st, 1917.

LAWS AND REGULATIONS.

It is with pleasure I am able to report that, with few exceptions, the laws and regulations have been adhered to. The amendments made to the Game and Fisheries Act during the session of the Legislature in 1916, providing for trappers' licenses and also making provision for the taking of beaver and otter under certain regulations prescribed by the Lieutenant-Governor in Council, has proved very acceptable to the trappers and the public in general, and incidentally had the effect of materially increasing the revenue of the Department. The regulation levying a royalty of fifty cents on each beaver skin taken in the Province, and one dollar on each otter skin, brought into the Provincial Treasury the sum of \$21,781.00, while the fees derived from trappers' licenses and farmers' permits brought in a total of \$23,040.00. The Statutes provide that farmers and farmers' sons trapping upon their own land shall be exempt from having to take out a trapper's license, but the regulation *re* the taking of beaver and otter upon their own lands require them to take out what is known as a farmer's permit, the fee being placed at the nominal sum of one dollar. This enables each farmer or farmer's son to take ten beaver in an open season. Realizing that these were new regulations and also that it was the first open season in Ontario for twenty years, the Department gave them, through their officers and the press, the widest possible publicity, with the result that these regulations were brought into force with little confusion and are now being well observed and working smoothly.

The Treaty between Great Britain and the United States *re* the protection of insectivorous and other birds referred to in my last report has been signed, and it will require legislation at the next session of the Legislature amending our Act to make it conform with the terms of the Treaty.

To create as well as stimulate interest in the better protection of our beautiful songsters and other birds, the Department has, at the request of the owner, Miss E. L. Marsh, set aside the "Peasemarch Farm," in the County of Grey, as a sanctuary. We trust the example set by Miss Marsh may be followed by others interested in the preservation and protection of bird life in this Province, and that

before many years we may have a large number of such sanctuaries. Miner's Farm, already so well known, is a splendid example of what can be done to preserve wild life.

GAME.

Deer and moose continue to hold their own, and notwithstanding the large drain upon the young men of the Province who have gone overseas, there were practically one thousand more hunters in the woods during the season of 1916-17 than during the previous season, while the returns show that there were forty more non-resident hunters visited the Province than during 1915 and 1916.

Caribou, I am pleased to say, are on the increase, especially in Kenora and Patricia Districts.

Ducks.—Sportsmen have no reason to complain of the scarcity of ducks.

Partridge do not seem to have increased to the extent expected and it may be necessary to extend the close season for another two years.

FUR-BEARING ANIMALS.

Beaver are still on the increase despite the fact that 1917 was an open season, which goes to prove that under the present regulations the open season may be continued for at least several years without diminishing their numbers to any alarming extent.

Mink and muskrats show a marked increase, due, no doubt, to the protection given, particularly to the latter, by the regulation enacted in 1916, whereby no muskrat shall be taken in that part of the Province lying south of the French and Mattawa Rivers, except from the 1st day of March to the 21st day of April, and in that part of the Province lying north of those two rivers from the 1st day of April to the 21st day of May. First-class furriers commend the action of the Department for this regulation.

Marten and fisher, I regret to say, are steadily on the decrease. I am of the opinion that it would be advisable to give these valuable fur-bearing animals the same protection that is extended to mink.

Otter.—In the majority of localities these animals are on the decrease and it may be necessary in the near future to give them further protection.

FISH.

Acting upon your suggestion that the Department do something practicable to assist in reducing the high cost of living, the Department decided to open some of our inland lakes under Government control. On September 26th the initial shipment of Lake Nipigon fish reached Toronto. This shipment contained eighteen boxes of whitefish and trout. The quality was excellent and the demand much greater than anticipated. The problem then was to supply the demand. The waters of Lake Nipissing were then added and shortly Lake Huron and Georgian Bay were assisting in supplying the demand.

The possible extent of consumption in the Province is scarcely realized, but some idea may be gained of the demand created when it is known that one firm in an Ontario city sold forty thousand pounds of fish in one day. The amount of fish obtained by the fishermen from Ontario waters can be judged by the total returns of 1916, which including salted fish, amounted to 37,518,608½ pounds at an estimated value of \$2,790,318.43. A large percentage of these fish had hitherto been exported to the American markets on account of the high price obtained there. The in-

roduction of the new regulation whereby the Department reserves the right to purchase twenty per cent. of the fishermen's entire catch (with the production of Lakes Nipigon and Nipissing), should be sufficient to meet the demand for the coming season. That a more popular public service has never been introduced by the Government is evidenced by the hearty support given the scheme by the press and public in general.

HATCHERY.

It is with much pleasure I can report the completion of the Normandale Hatchery. It is equipped with a thousand jars and a competent man secured as superintendent. The Department will watch with interest the result of its first year's operation. The Mount Pleasant Hatchery had good results. The Department was disappointed in not being able to secure the required quantity of brook trout eggs for this hatchery, but were successful in bringing nearly all obtained to maturity and in the fingerling stage they were deposited in rivers and streams in the different parts of the public waters of the Province, thus insuring in the course of a few years a marked improvement in the fishing. I would strongly recommend the building of a whitefish and trout hatchery in the District of Thunder Bay for the restocking of Lake Nipigon and other inland waters. A long felt want will be filled by the opening of Lake Nipigon, whereby the Department will be able to secure spawn from the most famous speckled trout waters in the Dominion. The demand for both bass and speckled trout for restocking far exceeds the supply. Great credit is due the Dominion Government for their untiring efforts in re-stocking the Great Lakes and furnishing the Department in 1917 with 1,120,000 salmon trout fry for the inland waters.

ACKNOWLEDGMENT.

The thanks of the Department are due to the railway and transportation companies for their assistance in making much easier the enforcement of the laws and regulations; also for the free hauling of the Government fish car during planting operations, and to the officers of the companies for the courtesies extended and aid rendered in facilitating the movements of the car between different points.

The provincial police officers and the fire ranging staff continue to render very efficient services to the Department, especially in the northern and western portion of the Province, for which I wish to thank the chief officers of these Departments. I desire to extend my sincere thanks to the employees of the Department for their faithful and effective services.

It is with deep regret I have to report that during the past year death has removed from our Department some of our most efficient officers. Our greatest loss was in the death of the Deputy Minister, the late Mr. Alfred Sheriff. In him the Province has lost a valuable servant who will be hard to replace. The Chief Inspector, the late Mr. W. W. Holden, died last November. During his term of office the Department's efficiency was greatly increased. Through his death we have lost a valuable officer. Through the deaths of Mr. J. H. Willmott and Mr. C. N. Sterling, District Wardens, the Department has lost two faithful and efficient officers.

All of which is respectfully submitted by

Your obedient servant,

D. McDONALD,
Acting Deputy Minister of Game and Fisheries.

TORONTO, February 14, 1918.

D. McDONALD, ESQ.,

Acting Deputy Minister of Game and Fisheries, Toronto, Ont.

SIR,—I herewith hand you my annual report for 1917. During the year I visited nearly all parts of the Province and found the fish and game laws were very well observed. From all parts of the Province reports received show that the number of tourists visiting the various fishing grounds showed a falling off compared with former years. This is caused, no doubt, by the war and general depression. It is certainly not due to any shortage of game fish as they have never been so numerous. Commercial fishing in all waters of the Province was better last year than ever before. This is, no doubt, due to the success of the different hatcheries in re-stocking the different lakes.

Deer are reported as being plentiful, also muskrats. Licensing trappers is proving a success. In my opinion marten and fisher should be protected: owing to the high price of their fur there is a danger of their being exterminated with no closed season to protect them. Ducks are reported much more numerous. Prohibiting their sale and limiting the number that each one can shoot is having a marked effect on their increase. In some parts of the Province the open season for ducks is asked to be September 15th.

The patrol boats which were in commission last year performed good service.

Your obedient servant,

ALF. HUNTER.

Inspector.

TORONTO, December 19th, 1917.

D. McDONALD, ESQ.,

Acting Deputy Minister of Game and Fisheries, Toronto, Ont.

SIR,—I beg to submit my report for the season of 1917.

The fishing in the vicinity of Toronto does not improve any but is about the same from year to year. Owing to the smallness of their catches a number of years past the fishermen seem to have lost heart, and if they only had fishing to depend on for a living they would all starve.

The trunk sewer has stopped the pollution and the water in the lake is fairly pure, and all that is required to bring the fishing back to what it formerly was is a liberal and systematic restocking with whitefish and salmon trout fry.

Unfavorable weather conditions during the months of May and June interfered somewhat with the bass ponds and brook trout hatchery at Mt. Pleasant, but taking the output altogether it should be considered very satisfactory.

To properly look after the restocking of inland waters this Department should have more bass ponds, and to complete the brook trout hatchery a range of nursery ponds are required. It is a great mistake to restock any inland water with any species of game fish in the fry stage.

The Department should establish a maskinonge hatchery in the vicinity of the Kawartha Lakes. The cost would be very small in comparison to the benefits that

would accrue therefrom. Unless some means are taken to rid the waters and reduce the number of the enemies of the young game fish, before they are planted, restocking will never produce the results that it should.

The change in the Game Act with reference to wild ducks has produced the good results expected.

Deer in most places are reported about as numerous as ever, but the partridge, except in odd places, are as scarce as before they were protected, and unless next spring proves an exceptionally good breeding season they should be given another year of protection.

Yours respectfully,

HENRY WATSON,
Warden.

SIMCOE, ONT., Dec. 24th, 1917.

D. McDONALD, ESQ.,

Acting Deputy Minister of Game and Fisheries, Toronto, Ont.

SIR,—I have the honour to submit my report for 1917.

Speckled Trout: These are still decreasing in this district. Through the kindness of the Department some fry was allotted to the region drained into Long Point Bay. They were carefully liberated well up stream in every instance, and the streams were screened for some weeks and the fry fed. I believe that this attention should always be given to keep down excessive loss during the early period of liberation.

Bass: The season's catch was the best on record and the size continues to increase.

Commercial Fish: Gill net fishing has been better than usual. The seine catch has held up well. Carp in Long Point Bay is still more plentiful and the demand stronger. This is one of the best paying commercial fish of the district.

Quail and Ruffed Grouse: The former is almost extinct. The latter is scarce and decreasing, perhaps owing to recent severe winters.

Woodcock: This species is still gradually increasing in number.

Wild Geese: These are still scarce and are seen only in the spring. None are taken. There are isolated cases of domestication of this bird in the County of Norfolk.

Wild Ducks: The duck have been less plentiful and left for the south earlier this year than usual.

Fur-bearing Animals: Black squirrel shows a decided decrease from 1916. Owing to the severity of the previous winter muskrats were decidedly scarce and the catch was discouraging to the trappers. The increased price was a partial offset to the disappointment. Cotton-tailed rabbit is abundant.

The game laws have been well observed in this district. The deputy wardens and overseers have kept the work well under supervision, and we have had very few complaints of infringement of the laws or regulations, and these have been investigated and dealt with.

I have the honour to be, Sir,

Your obedient servant,

W. BURT,
Game and Fishery Warden.

NORTH BAY, ONTARIO, October 31st, 1917.

D. McDONALD, Esq.,

Acting Deputy Minister of Game and Fisheries, Toronto, Ont.

DEAR SIR,—I beg to submit my annual report for the year ending October 31st, 1917.

Commercial fishing has been exceptionally good and the fishermen are well satisfied with their season's catch. Anglers report good catches, especially in Lake Nipissing and the French River waters.

Game: I have travelled my district extensively during the past year and am pleased to say that I find a general improvement in the game, and the laws have been fairly well observed. Wild ducks are very plentiful. Wild geese are scarce in this locality, but are plentiful further north. Snipe and plover are increasing. Partridge is still scarce. Many fine specimens of moose have already been brought in, but hunters report a scarcity of bull moose, while cows appear to be plentiful. Deer appear to be increasing and a number of caribou have also been reported further north.

Fur-bearing animals: Mink and muskrat appear to be plentiful. Otter is about the same as in previous years. Beaver, while a large number are being trapped, still appears to be quite plentiful. According to the best information which I can obtain, all other fur-bearing animals appear to be plentiful. Wolves are reported plentiful in many localities and are destroying a number of deer.

I would again like to recommend a general gun license which I think would help to prevent a lot of illegal hunting. I would also recommend that the fur buyers' licenses be increased for both residents and non-residents, the former to ten dollars and the latter to fifty dollars.

I would again recommend that provision be made for a suitable game preserve in the north country along the T. C. Railway as the forests of that country are fast disappearing.

Yours respectfully,

G. M. PARKS,

Game and Fishery Warden.

SAULT STE. MARIE, ONTARIO.

D. McDONALD, Esq.,

Acting Deputy Minister of Game and Fisheries, Toronto, Ont.

Commercial fishing has been good in my district in Lake Superior. The returns from fishermen show a bigger catch than in 1916, also in Lake Huron. Speckled trout are plentiful in this district in all the streams and in some of the inland lakes the anglers report good sport and good catches. Bass are increasing in the inland lakes and along the north shore of Lake Huron and the Sault Ste. Marie River. Rainbow trout are increasing in the Sault Ste. Marie River and the inland streams in West Algoma. Pickerel are on the increase in Lake Superior. Whitefish and lake trout are plentiful in Lake Superior, but are not as numerous in Lake Huron. Pike and suckers are increasing in this district, more so in the inland lakes.

Partridge are very scarce in this district. Snipe and plover are also very scarce. Wild ducks of all kinds are plentiful but wild geese are scarce. There are no quail nor are there any woodcock. Big game moose are plentiful in this north country, and there were not many killed in the open season owing to weather conditions. Deer are very plentiful. There are no caribou in this district, but further to the north there are quite a number of them. There are no elk. Beaver are very plentiful: all through this district the woods are flooded every place where there is a stream or a lake. They are destroying a great lot of timber. Otter are very scarce. Mink and muskrats are holding their own. Wolves and lynx are quite numerous and the bounty should be raised so that trappers would take an interest in destroying them. Hares are very scarce in this district, where there used to be thousands of them; there are only a few left. I cannot account for the decrease in numbers.

I might say that owing to the war and the high price of meat the regulations have been well observed.

J. T. ROBINSON,

Warden.

WINDSOR, February 4th, 1918.

D. McDONALD, Esq.,

Acting Deputy Minister of Game and Fisheries, Toronto, Ont.

SIR,—I have the honour to submit my annual report for 1917.

During the year I have visited the greatest part of my district and have also patrolled all the waters of Lake Erie in this district, the Detroit River, Lake St. Clair, River St. Clair and a small portion of Lake Huron.

The catch of fish by the angling fishermen was good. Black bass fishing by angling in Lake Erie and Lake Huron is about the same as the previous year. The net fishermen in all the lakes in my district had fair fishing this year and got a good price for their catch. The German carp was not so good a catch as last year. Whitefish in Lake Huron was a good catch up to the month of October, but in November the catch was small in Lake Huron as well as in the Detroit River. Lake St. Clair shows the poorest catch ever known.

In regard to game, quail has been reported by the farmers and sportsmen as being plentiful. The field trial people have found plenty of birds to work their dogs a couple of weeks ago. The Hungarian partridges seem to decrease from the reports of farmers. They seem to move to other places but the farmers did not find any dead or hear of any having been killed. Our home partridge has not increased in Essex and Kent Counties. Woodcock is about the same as in previous years. There are a few English pheasants around Pelee March. Wilson snipes are about the same as in other years. Different varieties of ducks in Lake Erie, Detroit River, Lake St. Clair, Mitchell Bay and the Flats were plentiful this year, and the sportsmen are looking for fair shooting this fall. The wild geese are about the same in number as in other years but the spring shooting should be closed on them. They were plentiful at Jack Miner's reserve last spring for the reason that he feeds them. Black and grey squirrels in Essex County are very scarce, and there should be a closed season on them. Muskrat houses are showing good in the marsh and I think they will be plentiful next spring.

The game and fishery laws have been very well observed during the past year. Very few seizures or prosecutions happened last year. The deputy wardens and overseers have performed their duties well and give me assistance and information with reference to poachers and other matters.

Your obedient servant,

V. CHAUVIN,
Game and Fishery Warden.

GRAVENHURST, January 5th, 1918.

D. McDONALD, Esq.,

Acting Deputy Minister of Game and Fisheries, Toronto, Ont.

DEAR SIR,—I beg to report on the conditions of game and fisheries in my district during 1917.

Sporting Game: Deer were reported quite as plentiful as last year and deer hunting is still very good. Some clubs were able to get their number in three or four days. Comparing to-day with twenty years ago a marked difference can be noticed. At one shipping point in Muskoka twenty years ago I saw as many as 150 deer go out in one season where now 10 would cover the past year's shipments. This would indicate that the deer are being driven further back into a smaller area.

Moose never were plentiful but a few have been reported.

Bear are reported a great deal more numerous than for some years previous, and they have been seen in places where they have been unknown for some time. No reports have reached me of damage to live stock being done by them.

Partridge are very scarce and should be protected for several years yet.

Ducks seem as plentiful as they have been for the past ten years.

Fur-bearing Animals: Mink and muskrat are still found to be as plentiful as I have known them to be for some years, but the beaver have increased under the protection of the close season to such an extent that about every piece of water has a family, and many complaints of their doing damage to timber and roads were reported, which complaints were quickly dealt with and very little actual damage occurred.

Wolves have not been reported on the increase and no cases have come to my notice where they have done damage to farmers' live stock, but the deer, no doubt, suffer as usual and every encouragement should be offered to wolf hunters.

Fishing: Sportsmen from nearly every lake in the district state that angling for bass, pickerel and trout has been much better this year than usual. This might be accounted for from the fact that the unusually cold weather in June and July did not warm up the waters and drive the fish down. From Lakes Muskoka, Joseph and Rosseau come reports of increase in the number of pickerel taken, which seems to indicate that the fish hatchery of the Muskoka Lakes' Trade Bureau is doing good work towards restocking these waters. Lake Simcoe fishing was also reported good and bass on the increase. A resident for some thirty years said that fishing was as good as he could ever remember it. The prohibition for some years of commercial fishing in these waters seems to have brought the supply back to normal again. These waters contain a large food reserve supply of herring and whitefish.

Your faithfully,

HERBERT DITCHBURN.

MOHAWK, December 31st, 1917.

D. McDONALD, Esq.,

Acting Deputy Minister of Game and Fisheries, Toronto, Ont.

DEAR SIR,—I beg to submit my ninth annual report of the work done at the Mt. Pleasant Hatchery.

Bass: The output of parent bass totalled 438 and small-mouthed black bass fingerlings 735,000, which were successfully transplanted in the most suitable inland waters of the Province in good condition. While the output was slightly below that of last year they were larger fish and good results may shortly be looked for.

Trout: The brook trout did remarkably well this season owing to the new supply of spring water which was installed last fall: 301,000 fingerlings of good size, some measuring from four to five inches in length, were deposited in the different spring waters of the Province and no mortality in transit was noticed. I also assisted in transplanting 600,000 lake trout fry from the Wiarton Hatchery. A considerable amount of brook trout, brown trout and salmon trout spawn has been secured this fall and a good season is looked forward to.

I assisted Mr. H. Watson, who had charge of the important work of transplanting, and who always insisted upon having the fish properly planted and in suitable waters, so the best possible results are sure to develop. I wish here to thank the different railway officials for the courtesy and good service rendered by them.

Construction Work: A new residence for the Superintendent, which will be in keeping with the rest of the hatchery, has been erected and will soon be occupied. The hatchery grounds which are very large have a splendid appearance owing to their general layout and the numerous flower-beds, also to their being completely sodded. A considerable amount of labor is required in cutting grass and keeping everything tidy throughout the summer season.

I would recommend that the property at the head of our water supply be secured, also that a series of some six rearing trout ponds be erected to take care of young fry when they are ready to leave the hatchery.

I remain,

Yours truly,

J. T. EDWARDS,

Superintendent, Mt. Pleasant Hatchery.

Statement of Revenue Received from Game and Fisheries during the year ended
October 31st, 1917.

Game.	\$ c.	\$ c.
Royalty Coupons (Beaver and Otter).....	21,781 43	
Trappers' Licenses.....	23,040 18	
Non-resident Hunting Licenses.....	7,125 00	
Resident Deer Licenses.....	27,082 70	
Resident Moose Licenses.....	5,985 00	
Game and Fur Dealers' Licenses.....	3,476 20	
Hotel and Restaurant Licenses.....	219 00	
Cold Storage Licenses.....	135 15	
Guides' Licenses.....	1,058 00	
Fines.....	3,707 90	
Sales.....	2,438 69	
Total Game.....		96,049 25
Fisheries.		
Fishing Licenses.....	102,022 28	
Angling Permits.....	17,151 03	
Fines.....	1,675 06	
Sales (Confiscated Articles).....	772 09	
Sales (Government Fish).....	4,188 28	
Revenue from Rondeau Park.....	1,773 23	
Total Fisheries.....		127,581 97
Total.....		223,631 22

1917

Waters Restocked	Location.	Species.	Number.
Big Rideau Lake.....	Lanark and Leeds Counties	Lake Trout Fry...	100,000
Charleston Lake.....	Leeds County.....	" " " "	100,000
Gould ".....	Frontenac County.....	" " " "	50,000
Silver ".....	Lanark ".....	" " " "	50,000
Lake of Bays.....	Muskoka District.....	" " " "	200,000
Vernon, Fairy and Mary Lakes.....	" ".....	" " " "	100,000
Eagle Lake.....	Frontenac County.....	" " " "	50,000
Allen ".....	Thunder Bay District...	" " " "	10,000
Trout ".....	" ".....	" " " "	10,000
Sharbot ".....	Frontenac County.....	" " " "	50,000
Clear ".....	" ".....	" " " "	50,000
Cache, Smoke and Island Lakes.....	Algonquin Park.....	" " " "	300,000
Island Lake.....	Lanark County.....	" " " "	50,000
Patterson's, Kent's, Crane and Cattle Creeks.....	Norfolk ".....	Brook Trout Fingerlings	50,000
Mill's and Blair's Creeks and Dam....	South Waterloo County..	" " " "	25,000
Ouse and Pakenham Creeks.....	Peterboro ".....	" " " "	5,000
Hurst's, Schmedes' and Banting's Creeks.....	North Waterloo ".....	" " " "	25,000
Duncerief's Creek.....	Middlesex ".....	" " " "	20,000
Ewart and Bell Lakes.....	Grey ".....	" " " "	10,000
Cedar Creek and Ponds.....	Oxford ".....	" " " "	50,000
Venison Creek.....	Norfolk ".....	" " " "	50,000
Castleton Creek.....	Northumberland ".....	" " " "	4,000
St. Agatha and Erbsville Creeks.....	Waterloo ".....	" " " "	25,000
Blair's Creek.....	" ".....	" " " "	25,000
Rixon's Creek.....	Northumberland ".....	" " " "	4,000
Streams vicinity, Markdale.....	Grey ".....	" " " "	8,000
Trout Lake.....	Thunder Bay District...	" " Yearlings	500
Varty Lake.....	Addington County.....	Black Bass Fingerlings	5,000
Sunfish Lake and Waterloo Dam.....	N. Waterloo County.....	" " " "	15,000
Big Rideau Lake.....	Lanark ".....	" " " "	100,000
River Thames at London.....	Middlesex ".....	" " " "	20,000
Mill Creek at Galt.....	Waterloo ".....	" " " "	25,000
Grand River at Galt.....	" ".....	" " " "	10,000
Cross Lake.....	Frontenac ".....	" " " "	15,000
Mississippi Lake.....	Lanark ".....	" " " "	25,000
Lake Simcoe.....	Simcoe and Ontario Cos..	" " " "	100,000
Lake Couchiching.....	" ".....	" " " "	50,000
Sturgeon Lake.....	Victoria County.....	" " " "	50,000
Pigeon ".....	Peterboro ".....	" " " "	50,000
Buckhorn ".....	" ".....	" " " "	25,000
Deer ".....	" ".....	" " " "	25,000
Long ".....	Hastings ".....	" " " "	25,000
Scugog ".....	West Durham County...	" " " "	40,000
Loborough ".....	Frontenac ".....	" " " "	50,000
Sharbot ".....	" ".....	" " " "	55,000
Stoney ".....	Peterboro ".....	" " " "	25,000
Clear ".....	" ".....	" " " "	25,000
Puslinch ".....	Wellington ".....	Parent Bass.....	150
Cedar ".....	Oxford ".....	" " " "	250
River Thames.....	Middlesex ".....	" " " "	15
Mill Creek.....	Waterloo ".....	" " " "	13
			2,156,928
Total Lake Trout Fry.....			1,120,000
" Brook Trout Fingerlings.....			301,000
" S. M. Black Bass Fingerlings.....			735,000
" Brook Trout Yearlings.....			500
" Parent Black Bass.....			428
			2,156,928

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1916, in the Public

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
Kenora and Rainy River.													
1	Lake of the Woods.....	3	54	\$ 6,000	8	28	11,125	48	22	\$ 885	14	34,300	\$ 4,920
2	Obabicon, Oneman, Wabigoon, Orang Outang and C ow Lakes.....					4	1,125	10	2	60	2	8,000	530
3	Shoal, Abraham, Rock and Eagle Lakes					3	1,030	7	4	295	5	9,200	1,215
4	Big Sea, Elephant, Busserd and Gull Lakes					4	650	5	2	60	4	7,000	890
5	Lac Suele, Raleigh and Pelican Lakes					3	950	7	3	280	6	10,600	810
6	Sturgeon, Minnitakie, Dog and Bell Lakes.....					2	550	2	4	150	3	4,200	365
7	Nepigon Lake.....								1	20	1	200	10
8	Rainy Lake.....					17	8,575	33	11	260	20	16,600	1,840
9	Namakan, Tuttle and Clearwater Lakes					1	500	2	5	155	11	12,400	1,265
10	Pipestone, Jackfish, Trout and Calm Lakes					3	500	7	4	110	10	7,500	700
Totals		3	54	6,000	8	65	25,005	121	58	2,275	76	110,000	12,545

Return of the kinds, quantities and values of fish caught during the

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
	<i>Kenora and Rainy River.</i>	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Lake of the Woods.....				303,110		12,249	379,341	408,700
2	Obabicon, Oneman, Wabigoon, Orang Outang and Crow Lakes..				34,600		26,000	19,000	32,306
3	Shoal, Abraham, Rock and Eagle Lakes.....				107,580		3,214	28,735	90,141
4	Big Sea, Elephant, Busserd and Gull Lakes.....				15,669		12,079	8,045	9,100
5	Lac Suele, Raleigh and Pelican Lakes.....				88,119		1,300	3,545	24,962
6	Sturgeon, Minnitakie, Dog and Bell Lakes.....				9,640		2,800	1,300	5,000
7	Nepigon Lake.....				1,500		500		
8	Rainy Lake.....				79,984		84	39,633	59,750
9	Namakan, Tuttle and Clearwater Lakes.....			3	39,917	4	15,128	21,556	4,553
10	Pipestone, Jackfish, Trout and Calm Lakes.....				5,021		1,262	7,333	6,874
	Totals.....			3	685,140	4	74,616	508,488	641,386
	Values.....			\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
				30 00	68,514 00	40 00	7,461 60	40,679 04	64,138 60

FISHERIES.

Quantity and value of all fishing materials and other fixtures employed in the fishing Waters of Kenora and Rainy River District.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$	28	\$ 9,950	8	\$ 525		\$		\$		\$	13	\$ 8,295	19	\$ 3,225
													3	925	4	175
													3	370	3	450
													5	340	5	160
													7	1,150	5	250
													3	175	1	50
			13	3,900									11	3,050	6	680
			5	1,000									2	200	1	50
													3	250		
			46	14,850	8	525							50	14,755	44	5,040

year 1916, in the Public Waters of Kenora and Rainy River Districts.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
1,100	5,862	80,946	.....	.....	290,815	102	.....	122,710 79
2,640	8,086	.....	12,000	27,645	468	.....	13,782 01
.....	7,549	.....	.....	.....	.....	.....	22,845 24
.....	700	.....	.....	.....	.....	.....	4,370 40
.....	998	.....	.....	4,000	.....	.....	11,981 58
.....	2,075	.....	.....	.....	.....	.....	1,972 50
4,126	1,895	25,542	.....	.....	1,000	.....	.....	250 00
750	10,770	.....	.....	28,152	250	.....	21,056 21
.....	1,900	.....	.....	7,400	120	.....	9,002 98
.....	6,811	.....	.....	2,356 89
8,616	7,757	138,566	.....	12,000	365,823	940	.....	210,328 60
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,292 40	387 85	8,313 96	.....	240 00	18,291 15	940 00	.....	210,328 60

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1916.

Number.	District.	Fishing Material.											
		Tugs.				Gasolene Launches			Sail or Row Boats.			Gill-Nets.	
		No.	Ton-nage.	Value.	Men.	No.	Value.	Men	No.	Value.	Men.	Yards.	Value.
	<i>Lake Superior.</i>			\$			\$		\$			\$	
1	Thunder Bay	4	63	8,400	17				5	350	7	132,900	4,977
2	Rosport	8	106	15,150	29	3	700	6	9	575	13	220,840	11,690
3	Black Bay, Whitefish Lake, Lac Des Milles Lac, and Port Cold- well	1	44	5,000	4	2	900	3	8	480	9	47,000	2,950
4	Shanagash Island, Wilson Island, Lamb Island and Muskeg Lake					1	200		4	375	7	10,100	770
5	Kashabowie, Long, South and Shebandown Lakes								5	290	6	6,600	460
6	Evelyn, Perley, Victoria and Bro- dier Islands								4	435	7	19,400	1,085
7	Pine, McKellars, Clavet, McLeans and Bignell Points								6	350	7	16,000	1,040
8	Pays Platte, Gravel, Shesheel and Nepigon Bays	1	20	1,500	4	2	450	3	4	245	5	16,300	1,130
9	Otter Head, Pilot Harbour, Steel River and Kama	1		2,000	6				2	300	2	4,220	300
10	Michipicoten	2	59	10,500	16	2	1,000	4	5	190	6	119,100	6,010
11	Mamaisé					3	1,500	8	1	150	2	32,000	2,650
12	Goulais Bay					3	1,600	7	8	535	14	51,000	3,145
13	Gros Cap					2	1,150	5	7	215	12	36,980	1,990
14	Batchawana					2	1,500	8	8	460	9	28,000	1,482
15	Gargantau	1	23	5,000	9	1	400	2	1	50	2	74,000	3,700
16	Richardson's Harbour	1	48	7,500	10							60,000	3,000
17	Persian, Sandy Islands and Angi- gama Lake								3	110	5	6,100	570
	Totals	19	363	55,050	95	21	9,400	46	80	5,210	113	880,540	46,949

Return of the kinds, quantities and values of fish caught

Number.	District	Herring, salted.	Herring, fresh.	Whitefish, salted	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel, or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake Superior.</i>								
1	Thunder Bay	637½	880,550	.....	37,895	3½	120,337	228	9,351
2	Rosport	1	1,987,070	.....	85,535	6	383,224	1,375	4,565
3	Black Bay, Whitefish Lake, Lac Des Milles Lac, and Port Coldwell		18,195	.....	49,192	1	145,010	14,740	59,020
4	Shaganash Island, Wilson Island, Lamb Island, and Muskeg Lake			4	6,275	8	41,348	550	1,385
5	Kashabowie, Long, South and Shebandown Lakes				7,074	.....	7,416	5,000	1,300
6	Evelyn, Perley, Victoria and Brodier Islands	70			170	14	58,385	10	.....
7	Pine, McKellars, Clavet, McLeans and Bignell Points	80	30,000		1,765	3	21,030	.....	300
8	Pays Platte, Gravel, Shesheel and Nepigon Bays		200,000		4,350	.....	49,815	50	8,006
9	Otter Head, Pilot Harbour, Steel River, and Kama		400	3	40,406	17	73,257	5	259
10	Michipicoten			4	39,411	34	197,758	.....	34
11	Mamaisae			11	12,869	16	134,909	.....	21
12	Goulais Bay	5	1,500		66,500	13	40,600	1,050	500
13	Gros Cap	12	9,300		30,032	.....	32,395	347	1,803
14	Batchawana				60,128		47,465	1,316	3,229
15	Gargantau				12,340	3	30,152	.....
16	Richardson's Harbour				4,499	18	111,418	.....
17	Persian, Sandy Islands and Angigama Lake				6,500	.....	7,150	100	.....
	Totals	805½	3,127,015	22	464,941	136½	1,501,719	24,771	89,733
	Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		8,055 00	156,350 75	220 00	46,494 10	1,365 00	150,171 90	1,981 68	8,973 30

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake Superior

Fishing Material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
				\$										\$		\$
			6	800									5	500		
			18	2,550									4	2,100	2	750
			10	950	1	20							3	1,600	3	430
			1	150												
													5	350	1	10
			1	250											1	50
													1	25		
			5	800												
			8	3,400									3	2,100	1	500
													4	3,100	3	1,200
													2	350	2	600
			6	3,000									2	500	1	800
			6	3,000									1	300	1	300
													4	4,000	1	1,000
			61	14,900	1	20							34	14,925	16	5,640

during the year 1916, in the Public Waters of Lake Superior.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare	Sturgeon bladders.	Value.
lbs.	lbs	lbs	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
			263			6,840			67,214 04
									147,323 68
						7,014			27,771 85
			65						5,068 70
						5,700			2,264 00
									6,696 30
			365						4,666 40
			145						16,229 20
842									11,738 90
						98,565			28,985 15
						571			15,008 45
		255							11,221 75
1,272				40		1,000	40		7,319 76
698									11,292 18
495						89,132			8,810 05
			1,570			38,150			13,773 40
						2,800			1,513 00
3,307									
		255	2,408	40		249,772	40		366,796 81
\$ c.		\$ c.	\$ c.	\$ c.		\$ c.			\$ c.
496 05		12 75	144 48	3 20		12,488 60	40 00		386 796 81

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1916, in the

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value
	<i>Lake Huron, North Channel.</i>			\$			\$			\$			\$
1	Thessalon					3	1,350	4	6	255	8	15,880	865
2	Spanish, John's Island, St. Jo- seph's and Cedar Islands					3	1,050	6	8	305	8	15,800	875
3	Grant, Laloche Islands, Nester- ville and Spragge					1	600	3	5	285	7	6,290	380
4	Blind River, Cutler, Algoma and Dean Lake								5	145	7	5,550	280
5	Bruce Mines, Mississauga and Buswell's Point	2	53	11,000	11	4	2,200	6	5	215	2	500	35
6	Shoepack, Flat Points and Little Detroit	1	10	1,300	3	2	1,000	5	2	125	.....	12,000	300
7	Fitzwilliam, Squaw and Duck Islands	7	192	37,000	36	6	2,950	14	.....	.....	.....	342,000	28,000
8	South Bay, Kagawong and Little Current	4	83	13,200	22	2	200	4	6	600	12	220,480	15,225
9	Killarney, Meldrum Bay and Round Island	3	88	17,000	17	7	2,775	14	6	500	10	204,230	18,660
10	Gore, Mudge, Sheguindah and Manitowaning Bays	1	6	500	3	3	1,050	7	8	685	17	50,640	4,193
11	Mississauga Straits, Wabino Chan- nel, Wekwemikong and Provi- dence Bays	2	38	8,000	11	3	1,800	6	1	50	2	91,500	2,900
12	Strawberry, Bedford, Cockburn and Heywood Islands					2	600	5	5	320	8	17,000	1,300
13	Berry, Barrie, Centre, George and Hamilton Islands	1	20	4,000	4	2	1,050	5	2	60	4	6,200	190
	Totals	21	490	92,000	107	38	16,625	79	59	3,545	85	988,070	73,203

Return of the kinds, quantities and values of fish caught during

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickereel, or Dore.
	<i>Lake Huron, North Channel.</i>	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Thessalon		460	.....	26,462	200	27,043	3,673	2,698
2	Spanish, John's Island, St. Jo- seph's and Cedar Islands	15	2,738	1	5,908	.....	11,484	9,181	2,336
3	Grant, Laloche Islands, Nester- ville and Spragge	2	920	100	5,893	100	9,185	4,409	1,390
4	Blind River, Cutler, Algoma and Dean Lake		1,450	.....	1,000	.....	1,412	1,739	545
5	Bruce Mines, Mississauga and Buswell's Point	7	18,981	.....	19,880	125	33,876	3,443	110,754
6	Shoepack, Flat Points and Little Detroit	11	1,647	.....	11,185	100	11,236	2,482	44,643
7	Fitzwilliam, Squaw and Duck Islands			800	208,480	1,250	531,255	.....	400
8	South Bay, Kagawong and Little Current		1,313	4	23,411	67	259,511	9,081	43,605
9	Killarney, Meldrum Bay and Round Island			50	206,665	58	299,736	19,141	16,022
10	Gore, Mudge, Sheguindah and Manitowaning Bays .....			.....	34,019	.....	21,379	15,273	15,911
11	Mississauga Straits, Wabino Chan- nel, Wekwemikong and Provi- dence Bays .....			.....	66,343	5	412,479	1,900	150
12	Strawberry, Bedford, Cockburn and Heywood Islands		235	100	8,549	85	15,366	2,800	11,489
13	Berry, Barrie, Centre, George and Hamilton Islands			3	133,286	1	17,611	10,575	23,281
	Totals	36	27,744	1,058	751,081	1,991	1,651,563	83,697	273,224
	Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		360 00	1,387 20	10,580 00	75,108 10	19,910 00	165,156 30	6,695 76	27,322 40

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the Public Waters of Lake Huron, North Channel.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
													2	300	1	200
			3	450									1	100	1	100
			4	250									1	300	1	200
			26	7,800									5	2,000	5	3,700
			12	3,350									4	600	2	1,100
			11	5,000									1	500	1	500
			6	5,000					1,300	78			2	600	2	2,000
			14	7,800									3	1,500	3	2,500
			14	4,900									2	350	2	550
			24	9,500									1	200	1	1,000
			3	1,000									1	300	1	1,000
			13	8,000									1	100	2	450
			130	53,050					1,300	78			24	6,850	22	13,300

the year 1916, in the Public Waters of Lake Huron, North Channel.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and Coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
167		450	50		300	17,657			8,876 54
458		1,736			4,804	17,010			4,106 26
86		5,090			5,124	10,768			4,983 80
		390				3,746			714 12
4,931		45	145			116,084	239		25,789 29
3,012		59				11,812			9,141 66
			60,000						98,113 50
1,177		8,504	3,769			30,688			36,517 12
264		915		485		13,455			55,650 48
746		154				63,713			11,657 99
			2,946			3,000			48,475 46
330						29,838			7,323 25
1,268		300				18,574			19,431 31
1,149		456		42	15	336,345	239		330,780 78
13,588		18,099	66,910	527	10,243				
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
2,038 20		904 95	4,014 60	42 16	204 86	16,817 25	239 00		330,780 78

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1916,

Number.	District.	Fishing material.												
		Tugs.				Gasoline Launches.			Sail or Row Boats			Gill-Nets.		
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.	
<i>Georgian Bay.</i>														
1	Byng Inlet	1	25	4,000	5	3	1,850	7	5	\$ 90	5	54,500	\$ c. 727 00	
2	Parry Sound	4	53	17,000	24	7	2,100	11	8	320	11	298,500	17,725 00	
3	Waubaushene								17	1,375	18	31,300	2,690 00	
4	Penetanguishene					1	625	4	5	160	10	19,020	1,075 00	
5	Collingwood	3	45	12,000	15	11	3,650	22	2	90	3	208,600	10,071 15	
6	Meaford (including Owen Sound Bay)	5	135	16,500	23	24	7,715	52	19	5,230	32	361,510	16,390 00	
7	Colpoys Bay to Tobermory.....	2	39	7,500	9	15	7,900	34	7	540	10	94,000	6,631 50	
Totals.....		15	297	57,000	75	61	23,840	130	63	7,805	89	1,067,430	55,309 65	

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
	<i>Georgian Bay.</i>	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Byng Inlet	9		1,750	124,201	225	17,120	15,065	31,048
2	Parry Sound			20	249,228	27	244,926	5,440	13,079
3	Waubaushene	10	1,500	1,000	2,300	4	2,400	19,675	6,300
4	Penetanguishene	250	3,450	15	10,200	38	16,400	325	75
5	Collingwood		21,535		16,479		102,204		
6	Meaford (including Owen Sound Bay)		22,500	1	7,445	1,329	584,671	6	
7	Colpoys Bay to Tobermory	23	9,300	50	4,375	1,369	238,222		76
	Totals	292	58,285	2,836	414,223	2,992	1,205,943	40,511	50,578
	Value	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		2,920 00	2,914 25	28,860 00	41,422 80	29,920 00	120,594 30	3,240 88	5,057 80

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the fishing in the Public Waters of the Georgian Bay.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$	8	\$ 3,250		\$		\$		\$		\$		\$		\$
.....	4	1,150	5	725
.....	34	526	.....	.....	.....	.....	.....	.....	1	700	1	200
.....	4	165	3	75
.....
.....	6,500	710	.....	.....	7	370	9	695
.....	11,400	1,495	.....	.....	3	500	1	200
.....	8	3,250	34	526	.....	.....	17,900	2,205	.....	.....	19	2,885	19	1,895

during the year 1916 in the Public Waters of the Georgian Bay.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
800	50	.....	.....	40	.....	38,446 10
.....	5,690	16,165	37,890	.....	.....	51,688 50
.....	2,808	3,500	.....	20	.....	.....	.....	15,702 40
3,600	2,560	.....	.....	500	12,364	590	.....	6,106 40
.....	14,881 25
.....	105	8,000	.....	.....	2,000	.....	.....	74,222 33
.....	138,234	.....	.....	.....	.....	.....	47,446 34
4,400	5,473	149,734	5,740	16,685	52,254	630	.....	248,383 32
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
660 00	275 65	8,984 04	459 20	333 70	2,612 70	630 00	.....	248,383 32

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1916,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton-nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake Huron (Proper).</i>			\$			\$			\$			\$
1	Tobermory to Southampton	7	155	24,500	41	9	3,500	22	17	1,830	31	412,380	30,320
2	Southampton to Pine Point	1	40	3,000	5	2	850	5	1	50	2	71,600	3,050
3	County of Huron	2	52	10,000	11	14	6,875	31	5	1,505	10	155,650	9,345
4	County of Lambton (including River St. Clair)					22	6,835	38	28	1,025	48	.....	.....
	Totals	10	247	37,500	57	47	18,060	96	51	4,410	91	639,630	42,715

Returns of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel, or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake Huron (Proper).</i>								
1	Tobermory to Southampton	277	48,750	11	15,774	1,023	522,373	400	76
2	Southampton to Pine Point		900			5	101,900		
3	County of Huron		31,680		9,200	1	205,487		18,913
4	County of Lambton (including River St. Clair)		123,459		49,986		41,724	688	196,303
	Totals	277	204,789	11	74,960	1,029	871,474	1,088	215,292
	Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		2,770 00	10,239 45	110 00	7,496 00	10,290 00	87,148 40	87 04	21,529 20

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Huron (Proper).

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	3,000	.....	.....
.....	.....	.....	8	2,100	.....	.....	.....	.....	.....	.....	.....	.....	2	220	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	1,235	.....	.....
6	324	340	54	16,100	.....	.....	4	6 50	.....	.....	.....	.....	2	400	1	10
6	324	340	62	18,200	.....	.....	4	6 50	.....	.....	.....	.....	18	4,855	1	10

during the year 1916, in the Public Waters of Lake Huron (Proper).

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
200	.....	52,050	385,246	.....	.....	4,500	80	.....	95,454 06
.....	.....	500	1,000	.....	.....	500	.....	.....	10,395 00
1,266	.....	86,604	46,234	.....	.....	27,437	68	.....	33,687 99
9,818	3	6,988	.....	106	8,509	55,121	629	6	40,418 88
11,284	3	146,142	432,480	106	8,509	87,558	777	6	179,955 93
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,692 60	18	7,307 10	25,943 80	8 48	170 18	4,377 90	777 00	3 60	179,955 93

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1916,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake St. Clair.</i>					\$			\$				\$
1	Kent County (including River Thames)	28		8,185	46	37	2,015	27					
2	Essex County	22		4,975	22	51	1,760	101					
3	Detroit River.....	7		2,350	43	35	721	76					
	Totals.....	57		15,510	111	123	4,496	204					

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake St. Clair.</i>								
1	Kent County (including River Thames)							28,049	12,632
2	Essex County		300		45,550			4,900	30,250
3	Detroit River.....				15,650			7,930	7,110
	Totals.....		300		61,200			40,879	49,992
	Values.....		\$ c. 15 00		\$ c. 6,120 00			\$ c. 3,270 32	\$ c. 4,999 20

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake St. Clair.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
20	4,366	2,070	.....		106	6,050	2	46	700	3	.....		22	4,600	.....
20	4,625	1,785	9	3,000	66	4,150	.....		2,000	190	.....		20	6,250	.....
42	5,200	2,592	.....		.....				.....		.....		.....		.....
82	14,191	6,447	9	3,000	172	10,200	2	46	2,700	193	.....		42	10,850	.....

during the year 1916, in the Public Waters of Lake St. Clair.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
200	70,380	.....	37,576	219,423	131,761	.....	.....	21,038 71
18,700	43,250	.....	19,375	148,650	111,600	490	.....	23,547 50
.....	2,535	.....	.....	238,700	32,550	.....	.....	9,438 65
18,900	116,165	.....	56,951	606,773	275,911	490	.....	54,024 86
\$ c.	\$ c.	\$ c.	.....	\$ c.	\$ c.	\$ c.	\$ c.	.....	\$ c.
2,835 00	5,808 25	.....	4,556 08	12,135 46	13,795 55	490 00	.....	54,024 86

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the fishing industry during the year 1916,

Number.	District.	Fishing material.											
		Tugs				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton-nage.	Value	Men.	No.	Value	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake Erie.</i>			\$		\$		\$		\$		\$	
1	Pelee Island.....	4	138	24,000	26	8	3,700	25	16	565	25	101,000	14,535
2	Essex County.....	1	37	8,000	9	44	27,050	92	26	990	7	26,000	1,975
3	Kent County, West.....	2	47	9,000	13	32	18,000	67	15	1,485	4	50,000	6,500
4	Kent County, East.....					21	10,025	79	6	1,005	1		
5	Elgin County, West.....	2	64	5,400	12	17	7,675	58	5	935		74,400	7,700
6	Elgin County, East.....	20	688	126,500	68	3	2,250	11				684,505	88,750
7	Norfolk County.....	7	353	49,080	76	15	7,510	28	66	12,210	145	404,700	24,695
8	Haldimand County (to and in- cluding the Grand River)....	6	128	30,000	32	18	9,450	36	25	545	18	151,200	10,235
9	Port Maitland to Port Colborne..	3	44	7,000	8	4	2,000	18	5	1,200		40,000	5,460
10	Port Colborne to Niagara Falls..								26	755	28	14,200	570
	Totals.....	45	1,504	258,980	244	165	87,660	414	190	19,690	228	1,546,005	164,420

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.		Herring, fresh.		Whitefish, salted.		Whitefish fresh.		Trout, salted.		Trout, fresh.		Pike.	Pickerel, or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.		
	<i>Lake Erie.</i>														
1	Pelee Island.....	10	195,300				80,267						5		40,211
2	Essex County.....		96,045				300,688						4,431		163,868
3	Kent County, West.....		479,087				48,005								94,823
4	Kent County, East.....		214,155				35,899						18		44,365
5	Elgin County, West.....		391,409				46,483						587		33,004
6	Elgin County, East.....		1,615,516				168,410				116		289,369		167,272
7	Norfolk County.....		1,225,046				192,358				1,524		60,270		28,649
8	Haldimand County (to and in- cluding the Grand River)....		845,225				189,474				1,797		30		18,189
9	Port Maitland to Port Colborne..		148,326				24,501				277		82,297		8,771
10	Port Colborne to Niagara Falls..		422												
	Totals.....	10	5,210,531				1,086,085				3,714		437,007		599,152
	Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		100 00	260,526 55				108,608 50				371 40		34,960 56		59,915 20

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake Erie.

Fishing material.													Other fixtures used in fishing.			
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
1	133	25	26	5,550	.....	.....	.....	.....	1,200	24	.....	.....	3	9,200	3	5,700
6	1,390	455	198	106,400	2	50	.....	.....	.....	.....	.....	.....	16	15,450	3	350
2	150	60	115	59,250	.....	.....	.....	.....	.....	.....	.....	.....	23	30,550	13	4,725
5	2,000	900	79	41,000	.....	.....	.....	.....	.....	.....	.....	.....	22	25,800	7	1,600
.....	.....	.....	86	39,800	.....	.....	.....	.....	.....	.....	.....	.....	11	8,500	10	10,950
.....	.....	.....	28	18,500	.....	.....	4	40	200	6	.....	.....	8	7,550	12	3,550
34	13,250	6,495	48	19,800	6	100	.....	.....	.....	.....	.....	.....	28	31,575	12	2,900
4	294	120	44	17,800	.....	.....	7	37	.....	.....	.....	.....	10	4,200	7	1,300
.....	.....	.....	14	5,000	.....	.....	.....	.....	.....	.....	.....	.....	5	1,800	4	250
2	80	33	.....	.....	.....	.....	.....	.....	8,650	93	.....	.....	.....	.....	.....	.....
54	17,297	8,088	638	313,100	8	150	11	77	10,050	123	.....	.....	126	134,625	71	31,325

during the year 1916, in the Public Waters of Lake Erie.

Sturgeon.	Eels.	Perch.	Tulibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickered (Blue).	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
15,295	104,449	.....	3,738	5,752	72,582	685	.....	137,567	47,914 78
9,288	126,435	35	4,887	161,808	447,591	593	.....	348,031	120,732 90
3,442	120,310	.....	8	3,011	146,837	143	.....	379,598	90,274 46
1,086	84,179	.....	257	45,404	44,404	22	.....	194,663	45,746 33
949	78,803	.....	938	209	62,170	21	.....	329,026	67,760 43
710	99,776	.....	8,678	699	72,748	10	.....	247,314	171,687 44
8,342	112,815	23,800	4,186	516,696	102,302	786	14	520,581	165,283 95
16,323	33,375	.....	188	43,951	92,272	576	200	337,761	107,306 61
2,715	7,543	.....	.....	316	19,136	172	.....	25,100	21,784 48
9,492	1,471	.....	.....	4,450	21,175	407	20	19,285	5,013 70
67,642	769,156	23,835	22,880	782,296	1,081,217	3,418	234	2,538,926	843,505 08
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
10,146 30	38,457 80	1,430 10	1,830 40	15,645 92	54,060 85	3,418 50	140 40	253,892 60	843,505 08

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats fishing industry during the year 1916.

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake Ontario.</i>			\$		\$		\$		\$		\$	
1	Lincoln County.....	22		14,300	42	11	555	13	102,565	6,082			
2	Wentworth County.....	8		3,500	18	8	325	12	52,000	4,800			
3	Halton County.....	19		5,825	38	1	75	2	103,000	5,700			
4	Peel County.....	3		1,000	5	.....	.....	.....	16,600	1,267		
5	York County.....	8		3,025	16	5	275	8	32,100	2,978			
6	Ontario County.....	1		150	2	1	50	2	5,000	400			
7	Durham County.....	1	20	6,000	5	3	1,050	4	130	3	51,000	2,755	
8	Northumberland County.....	13		4,975	26	25	1,205	41	63,400	3,470			
9	Prince Edward County.....	56		14,375	103	77	2,125	134	319,700	16,990			
10	Bay of Quinte (Proper).....	10		850	20	122	6,145	207	65,500	6,170			
11	Bay of Quinte (Eastern Channel).....	12		2,450	22	25	925	36	90,200	4,825			
12	Wolfe Island and Vicinity).....	10		2,260	21	20	470	28	24,500	800			
	Totals	1	20	6,000	5	165	53,760	317	298	12,280	486	925,565	51,437

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickrel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake Ontario.</i>								
1	Lincoln County .....	.....	596,528	.....	34,350	.....	12,900	600	8,300
2	Wentworth County .....	.....	181,341	.....	39,200	.....	7,400	.....	520
3	Halton County .....	.....	329,560	.....	11,600	.....	15,900	.....	.....
4	Peel County .....	.....	25,901	.....	4,948	.....	16,020	.....	.....
5	York County .....	.....	12,759	.....	26,270	.....	6,269	.....	.....
6	Ontario County .....	.....	300	.....	11,000	.....	1,216	150	.....
7	Durham County .....	.....	1,400	.....	55,893	.....	5,887	310	.....
8	Northumberland County	12	51,369	.....	143,835	.....	97,548	70,422	.....
9	Prince Edward County	41	119,024	2	397,306	900	132,623	25,063	.....
10	Bay of Quinte (Proper)	1	271,892	602	264,503	50	50	162,936	26,552
11	Bay of Quinte (Eastern Channel)	$\frac{1}{2}$	20,376	3	136,619	.....	46,104	2,433	3,331
12	Wolfe Island and Vicinity	1	100	3	5,590	12	5,850	21,516	1,300
	Totals	55 $\frac{1}{2}$	1,610,490	610	1,130,614	962	347,767	283,430	40,003
	Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		555 00	80,524 50	6,100 00	113,061 40	9,620 00	34,776 70	22,674 40	4,000 30

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Ontario.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
2	600	200					2	300	2,200	16 40	42	65	44	1,020		
1	200	65											20	1,785		
5	800	314											2	200		
													1	25	1	250
					50	1,245							20	1,385	3	240
					107	2,586			1,100	80 00			2	200	11	300
					377	4,955			2,400	40 25			2	400	1	50
1	7	15			8	200			1,450	74 50			2	400	1	50
4	77	135			80	1,545			1,800	60 00			7	825	8	1,000
13	1,684	729			622	10,531	2	300	8,950	271 15	42	65	98	5,840	24	1,840

during the year 1916, in the Public Waters of Lake Ontario.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Herring, Smoked.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
2,432	300	4,500		1,200		17,050				37,123 70
		1,875		25	29,200	15,230	138			15,220 30
					5,000	5,000				19,575 00
						150				3,399 35
	20	200			170,650	3,057				7,468 90
						7				1,248 60
						3,250				6,385 44
	9,606	16,715	2,428	32,080	8,400	100,880				41,796 70
	15,534	8,010	1,255	45,366	11,800	146,500				82,977 26
	93,825	110,704		182,745	34,580	287,714				103,136 08
	8,810	3,217		1,900	700	15,050				21,461 79
650	14,730	21,527		38,677	7,615	84,898	400			10,609 29
3,082	142,835	166,838	3,683	301,923	267,952	628,779	538			350,402 41
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
462 30	8,569 50	8,341 90	220 98	24,159 44	5,359 04	31,438 95	538 00			350,402 41

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats fishing industry during the year

Number.	District.	Fishing material.												
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill Nets.		
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.	
<i>Inland Waters.</i>														
1	Frontenac County			\$		4	850	6	54	\$	1,221	59	510	\$ c. 99
2	Lanark and Leeds Counties.....					67	12,030	83	36		634	61	.....	.....
3	Carleton, Russell, Grenville and Prescott Counties.....					3	900	4	21		335	28	1,100	59
4	Peterboro, Victoria and Stormont Counties					7	1,400	7	17		263	16	.....	.....
5	Lake Simcoe					4	2,950	4	17		720	11	.....	.....
6	Nipissing and Timiskaming Dis- tricts.....					11	3,600	20	11		505	16	15,460	1,863
Totals.....						96	21,730	124	156		3,678	191	17,070	2,021

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickerei or Dore.
	<i>Inland Waters.</i>	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Frontenac County.. . . .				13,439			16,203	
2	Lanark and Leeds Counties.....							13,419	
3	Carleton, Russell, Grenville and Prescott Counties.....							4,015	2,000
4	Peterboro, Victoria and Stormont Counties								
5	Lake Simcoe		448		7,120		18,079		4,148
6	Nipissing and Timiskaming Dis- tricts.....	1	4,526	1	19,993		2,551	30,123	37,429
	Totals.....	1	4,974	1	40,552		20,630	63,760	43,577
	Values	\$ c. 10 00	\$ c. 248 70	\$ c. 10 00	\$ c. 4,055 20		\$ c. 2,063 00	\$ c. 5,100 80	\$ c. 4,357 70

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the 1916, in the Public Inland Waters.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
8	97	\$ 104	.....	\$	86	\$ c.	.....	\$	200	\$ c.	.....	\$	2	\$ 325	1	\$ 25
6	140	85	.....	.....	260	2,025 5,167	.....	.....	8,400	26 50 226 00	.....	.....	3	300	.....	.....
.....	.....	.....	.....	.....	12	265	20	40 75	1,900	72 00	.....	.....	1	40	.....	.....
5	50	49	.....	.....	2	30	3	10	7,800	182 00	.....	.....	1	600	4	400
4	1,600	720	.....	.....	.....	.....	.....	.....	1,800	35 00	168	550 85	1	.....	.....	.....
.....	.....	.....	9	1,180	3	75	.....	.....	.....	.....	.....	.....	8	2,080	5	415
23	1,887	958	9	1,180	363	7,562	23	50 75	20,100	517 50	168	550 85	15	3,345	10	840

during the year 1916, in the Public Inland Waters.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
.....	3,288	1,710	.....	48,338	450	86,012	.....	.....	11,099 56
7,682	16,904	11,994	.....	100,535	2,423	169,971	.....	.....	20,429 57
575	1,655	3,125	.....	2,200	1,568	22,550	.....	.....	2,197 86
8,450	1,425	.....	.....	.....	.....	16,284	135	.....	2,302 20
.....	.....	11,490	.....	.....	.....	40,665	.....	.....	8,543 33
.....	50	312	2,108	3,400	.....	23,452	.....	.....	10,243 12
16,707	23,322	28,631	2,108	154,473	153,365	358,934	135	.....	54,815 64
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
2,506 05	1,399 32	1,431 55	126 48	12,357 84	3,067 30	17,946 70	135 00	.....	54,815 64

ONTARIO

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats. industry during

Number	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
			\$			\$			\$			\$	c.
1	Kenora & Rainy River Dists.	3	54	6,000	8	65	25,005	121	58	2,275	76	110,000	12,545 00
2	Lake Superior.....	19	363	55,050	95	21	9,400	46	80	5,210	113	880,540	46,949 00
3	Lake Huron (North Channel)	21	490	92,000	107	38	16,625	79	59	3,515	85	988,070	73,203 00
4	Georgian Bay.....	15	297	57,000	75	61	23,840	130	63	7,805	89	1,067,430	55,309 65
5	Lake Huron (Proper)	10	247	37,500	57	47	18,060	96	51	4,410	91	639,630	42,715 00
6	Lake St. Clair, etc.....					57	15,510	111	123	4,496	204		
7	Lake Erie.....	45	1,504	258,980	244	165	87,660	414	190	19,690	228	1,546,005	164,420 00
8	Lake Ontario.....	1	20	6,000	5	165	53,760	317	298	12,280	486	925,565	51,437 00
9	Inland Waters.....					96	21,730	124	156	3,678	191	17,070	2,021 00
	Totals.....	114	2,975	512,530	591	715	271,590	1,438	1078	63,389	1,563	6,174,310	448,599 65

Recapitulation of the kinds, quantities and values

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Kenora and Rainy River Districts			3	685,140		74,616	508,488	641,386
2	Lake Superior	805½	3,127,015	22	464,941	136½	1,501,719	24,771	89,733
3	Lake Huron (North Channel)	36	27,744	1,058	751,081	1,991	1,651,563	93,697	273,224
4	Georgian Bay	292	58,285	2,836	414,228	2,992	1,205,943	40,511	50,578
5	Lake Huron (Proper)	277	204,789	11	74,960	1,029	871,484	1,086	215,292
6	Lake St. Clair, etc.		300		61,200			40,879	49,992
7	Lake Erie	10	5,210,531		1,086,085		3,714	437,007	599,152
8	Lake Ontario	55½	1,610,490	610	1,130,614	962	347,767	283,430	40,003
9	Inland Waters	1	4,974	1	40,552		20,630	63,760	43,577
	Totals	1,477	10,244,128	4,541	4,708,801	7,114½	5,677,436	1,483,631	2,002,987
	Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		14,770 00	512,206 40	45,410 00	470,880 10	71,145 00	567,743 60	118,690 48	200,293 70

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the fishing the year 1916.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$ c.		\$ c.		\$ c.		\$		\$
			46	14,850	8	525							50	14,755	44	5,040
			61	14,900	1	20							34	14,925	16	5,640
			130	53,050					1,800	78 00			24	6,850	22	13,300
			8	3,250	34	526			17,900	2,205 00			19	2,885	19	1,895
6	324	340	62	18,200			4	6 50					18	4,855	1	10
82	14,191	6,447	9	3,000	172	10,200	2	46 00	2,700	193 00			42	10,850		
54	17,297	8,088	638	313,100	8	150	11	77 00	10,050	123 00			126	134,625	71	31,325
13	1,684	729			622	10,531	2	300 00	8,950	271 15	42	65 00	98	5,840	24	1,840
23	1,887	958	9	1,180	363	7,562	23	50 75	20,100	517 50	168	550 85	15	3,345	10	840
178	35,383	16,562	963	421,530	1208	29,514	42	480 25	61,000	3,387 65	210	615 85	426	198,930	207	59,890

of fish caught during the year 1916.

Sturgeon.	Eels.	Perch.	Tulibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
8,616		7,757	138,566		12,000	365,823	940			210,328 60
3,307		255	2,408		40	249,772	40			386,796 81
13,588		18,099	66,910	527	10,243	336,345	239			330,780 78
4,400		5,473	149,734	5,740	16,685	52,254	630			248,383 32
11,284	3	146,142	432,480	106	8,509	87,558	777	6		179,955 93
18,900		116,165		56,951	606,773	275,911	490			54,024 86
67,642		769,156	23,835	22,880	783,296	1,081,217	3,418 1/2	234	2,538,926	843,505 08
3,082	142,825	166,836	3,633	301,993	287,952	623,779	538			350,402 41
16,707	23,532	28,631	2,108	154,473	153,365	358,934	135			54,815 64
147,526	166,150	1,258,516	819,724	542,710	1,857,823	3,436,593	7,207 1/2	240	2,538,926	2,658,993 43
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
22,128 90	9,969 00	62,925 80	49,183 44	43,416 80	37,156 46	171,829 65	7,207 50	144 00	253,892 60	2,658,993 43

Comparative Statement of yield for 1915-16, according to Districts.

	1915.	1916.	Increase.	Decrease.
Kenora and Rainy River Districts:				
Herring bbls.				
Herring lbs.				
Whitefish bbls.		3	3	
Whitefish lbs.	1,349,624	685,140		664,484
Trout bbls.		4	4	
Trout lbs.	92,753	74,616		18,137
Pike "	1,221,942	508,488		713,454
Pickere! (Dore) "	1,163,735	641,386		522,349
Sturgeon "	85,639	8,616		77,023
Eels "	59,554	59,554		59,554
Perch "	7,975	7,757		218
Tullibee "	262,110	138,566		123,544
Catfish "	118,630	22		118,630
Carp "	190,320	12,000		178,320
Mixed and Coarse Fish "	81,480	365,823	284,343	
Caviare "	1,700	940		760
Sturgeon Bladders No.	121			121
Lake Superior:				
Herring bbls.	2,234½	805½		1,429
Herring lbs.	2,776,900	3,127,015	350,115	
Whitefish bbls.	690	22		668
Whitefish lbs.	841,980	464,941		377,039
Trout bbls.	9,896½	136½		9,760
Trout lbs.	1,645,278	1,501,719		143,559
Pike "	70,876	24,771		46,105
Pickere! (Dore) "	179,961	89,733		90,228
Sturgeon "	16,048	3,307		12,741
Eels "				
Perch "	300	255		45
Tullibee "	8,914	2,408		6,506
Catfish "		40	40	
Carp "	1,400			1,400
Mixed and Coarse Fish "	157,068	249,772	92,704	
Caviare "	16	40	24	
Lake Huron, North Channel:				
Herring bbls.	138	36		102
Herring lbs.	39,380	27,744		11,636
Whitefish bbls.	103	1,058	955	
Whitefish lbs.	656,459	751,081	94,622	
Trout bbls.	179	1,991	1,812	
Trout lbs.	1,725,232	1,651,563		73,669
Pike "	101,836	83,697		18,139
Pickere! (Dore) "	332,602	273,224		59,378
Sturgeon "	27,475	13,588		13,887
Eels "				
Perch "	16,183	18,099	1,916	
Tullibee "	52,394	66,910	14,516	
Catfish "	1,396	527		869
Carp "	5	10,243	10,238	
Mixed and Coarse Fish "	425,518	336,345		89,173
Caviare "	427	239		188
Sturgeon Bladders No.	248			248
Georgian Bay:				
Herring bbls.	461	292		169
Herring lbs.	99,069	58,285		40,784
Whitefish bbls.	1,350	2,836	1,506	
Whitefish lbs.	392,425	414,228	21,803	
Trout bbls.	3,662	2,992		670

Comparative Statement of yield for 1915-16, according to Districts—Continued.

	1915.	1916.	Increase.	Decrease
Georgian Bay—Continued:				
Trout lbs.	1,388,289	1,205,943	.....	182,346
Pike "	78,383	40,511	.....	37,872
Pickere! (Dore) "	85,378	50,578	.....	34,800
Sturgeon "	6,128	4,400	.....	1,728
Eels . . . . . " . . . . .	.....	.....	.....	.....
Perch "	11,017	5,473	.....	5,544
Tullibee "	43,014	149,734	106,720	.....
Catfish "	8,675	5,740	.....	2,935
Carp "	15,550	16,685	1,135	.....
Mixed and Coarse Fish "	45,504	52,254	6,750	.....
Caviare "	905	630	.....	275
Lake Huron (proper):				
Herring bbls.	405	277	.....	128
Herring lbs.	221,871	204,789	.....	17,082
Whitefish bbls.	25	11	.....	14
Whitefish lbs.	51,859	74,960	23,101	.....
Trout bbls.	987	1,029	42	.....
Trout lbs.	787,617	871,484	83,867	.....
Pike "	209	1,088	879	.....
Pickere! (Dore) "	167,983	215,292	47,309	.....
Sturgeon "	12,606	11,284	.....	1,322
Eels . . . . . " . . . . .	.....	3	3	.....
Perch "	161,658	146,142	.....	15,516
Tullibee "	269,849	432,480	162,631	.....
Catfish "	16	106	90	.....
Carp "	11,014	8,509	.....	2,505
Mixed and Coarse Fish "	80,817	87,558	6,741	.....
Caviare "	982	777	.....	205
Sturgeon Bladders No.	13	6	.....	7
Lake St. Clair and Detroit River:				
Herring bbls. . . . .	.....	.....	.....	.....
Herring lbs. . . . .	.....	300	300	.....
Whitefish bbls.	200	.....	.....	200
Whitefish lbs.	43,700	61,200	17,500	.....
Trout lbs. . . . .	.....	.....	.....	.....
Pike "	54,643	40,879	.....	13,764
Pickere! (Dore) "	37,389	49,992	12,603	.....
Sturgeon "	34,115	18,900	.....	15,215
Eels . . . . . " . . . . .	.....	.....	.....	.....
Perch "	112,616	116,165	3,549	.....
Tullibee . . . . . " . . . . .	.....	.....	.....	.....
Catfish "	66,268	56,951	.....	9,317
Carp "	663,570	606,773	.....	56,797
Mixed and Coarse Fish "	383,621	275,911	.....	107,710
Caviare "	1,067	490	.....	577
Lake Erie:				
Herring bbls. . . . .	.....	10	10	.....
Herring lbs.	5,573,688	5,210,531	.....	363,157
Whitefish bbls. . . . .	.....	.....	.....	.....
Whitefish lbs.	1,832,243	1,086,085	.....	746,158
Trout bbls. . . . .	.....	.....	.....	.....
Trout lbs.	2,383	3,714	1,331	.....
Pike "	630,450	437,007	.....	193,443
Pickere! (Dore) "	607,710	599,152	.....	8,558
Sturgeon "	56,315	67,642	11,327	.....
Eels . . . . . " . . . . .	.....	.....	.....	.....
Perch "	1,042,091	769,156	.....	272,935

Comparative Statement of yield for 1915-16, according to Districts—Continued.

	1915.	1916.	Increase.	Decrease.
Lake Erie.—Continued:				
Tullibee lbs....	21,100	23,835	2,735	
Catfish "	38,436	22,880		15,556
Carp "	904,880	782,296		122,584
Mixed and Coarse Fish "	948,558	1,081,217	132,659	
Caviare "	2,861½	3,418½	557½	
Sturgeon Bladders No....	1,219	234		985
Pickarel (Blue) lbs....	4,882,312	2,538,926		2,343,386
Lake Ontario:				
Herring bbls....	95¾	55½		40½
Herring lbs....	1,706,391	1,610,490		95,901
Whitefish bbls....	40	610	570	
Whitefish lbs....	809,618	1,130,614	320,996	
Trout bbls....	23	962	939	
Trout lbs....	550,769	347,767		203,002
Pike "	336,988	283,430		53,558
Pickarel (Dore) "	85,965	40,003		45,962
Sturgeon "	1,521	3,082	1,561	
Eels "	219,703	142,825		76,878
Perch "	119,310	166,838	47,528	
Tullibee "		3,683	3,683	
Catfish "	267,698	301,993	34,295	
Carp "	112,518	267,952	115,434	
Mixed and Coarse Fish "	438,684	628,779	190,095	
Caviare "		538	538	
Herring, smoked "	75,800			75,800
Inland Waters:				
Herring bbls....		1	1	
Herring lbs....	2,336	4,974	2,638	
Whitefish bbls....		1	1	
Whitefish lbs....	15,711	40,552	24,841	
Trout bbls....				
Trout lbs....	33,847	20,630		13,217
Pike "	59,085	63,760	4,675	
Pickarel (Dore) "	11,045	43,577	32,532	
Sturgeon "	11,615	16,707	5,092	
Eels "	33,266	23,322		9,944
Perch "	19,170	28,631	9,461	
Tullibee "	5,600	2,108		3,492
Catfish "	166,370	154,473		11,897
Carp "	118,840	153,365	34,525	
Mixed and Coarse Fish "	445,015	358,934		86,081
Caviare "	22	135	113	
Sturgeon Bladders No....	3			3

Statement of the yield and value of the Fisheries of the Province for the year 1916.

Kinds of Fish.	Quantity.	Price.	Value.
Herring bbls.	1,477	\$ c.	\$ c.
Herring lbs.	10,244,128	10 00	14,770 00
Whitefish bbls.	4,541	05	512,206 40
Whitefish lbs.	4,708,801	10 00	45,410 00
Trout bbls.	7,114 $\frac{1}{2}$	10	470,880 10
Trout lbs.	5,677,436	10 00	71,145 00
Pike "	1,483,631	10	567,743 60
Pickarel (Dore) "	2,002,937	08	118,690 48
Sturgeon "	147,526	10	200,293 70
Eels "	166,150	15	22,128 90
Perch "	1,258,516	06	9,969 00
Tullibee "	819,724	05	62,925 80
Catfish "	542,710	06	49,183 44
Carp "	1,857,823	08	43,416 80
Mixed and Coarse Fish "	3,436,593	05	37,156 46
Caviare "	7,207 $\frac{1}{2}$	05	171,829 65
Sturgeon Bladders No.	240	1 00	7,207 50
Pickarel (blue) lbs.	2,538,926	60	144 00
		10	253,892 60
Total			2,658,993 43

Comparative Statement of the yield of the Fisheries of the Province.

	1915	1916	Increase.	Decrease.
Herring bbls.	3,334 $\frac{1}{4}$	1,477		1,857 $\frac{1}{4}$
Herring lbs.	10,419,635	10,244,128		175,507
Whitefish bbls.	2,388	4,541	2,153	
Whitefish lbs.	5,993,619	4,708,801		1,284,818
Trout bbls.	14,747 $\frac{1}{2}$	7,114 $\frac{1}{2}$		7,633
Trout lbs.	6,226,168	5,677,436		548,732
Pike "	2,584,412	1,483,631		1,100,781
Pickarel (Dore) "	2,671,768	2,002,937		668,831
Sturgeon "	251,462	147,526		103,936
Eels "	312,523	166,150		146,373
Perch "	1,490,320	1,258,516		231,804
Tullibee "	662,981	819,724	156,743	
Catfish "	667,489	542,710		124,779
Carp "	2,018,097	1,857,823		160,274
Mixed and Coarse Fish "	3,006,265	3,436,593	430,328	
Caviare "	7,980 $\frac{1}{4}$	7,207 $\frac{1}{2}$		772 $\frac{3}{4}$
Sturgeon Bladders No.	1,604	240		1,364
Pickarel (Blue) lbs.	4,882,312	2,538,926		2,343,386
Herring, Smoked "	75,800			75,800
Total Barrels	20,469 $\frac{3}{4}$	13,132 $\frac{1}{2}$		
Total Pounds	41,270,831 $\frac{1}{4}$	34,892,108 $\frac{1}{2}$		
Total, Decrease of Barrels 1916				7,337 $\frac{1}{4}$
Total Decrease of Pounds 1916				6,378,723 $\frac{3}{4}$

Value of Ontario Fisheries from 1870 to 1916, inclusive.

Years.	Value.	Years.	Value.
	\$		\$ c.
		<i>Brought forward</i>	23,116,692 00
1870.....	264,982	1894.....	1,659,968 00
1871.....	193,524	1895.....	1,584,473 00
1872.....	267,633	1896.....	1,605,674 00
1873.....	293,091	1897.....	1,289,822 00
1874.....	446,267	1898.....	1,433,631 00
1875.....	453,194	1899.....	1,477,815 00
1876.....	437,229	1900.....	1,333,293 00
1877.....	438,223	1901.....	1,428,078 00
1878.....	348,122	1902.....	1,265,705 00
1879.....	367,133	1903.....	1,535,144 00
1880.....	444,491	1904.....	1,793,524 00
1881.....	509,903	1905.....	1,708,963 00
1882.....	825,457	1906.....	1,734,865 00
1883.....	1,027,033	1907.....	1,935,024 90
1884.....	1,133,724	1908.....	2,100,078 63
1885.....	1,342,692	1909.....	2,237,544 41
1886.....	1,435,998	1910.....	2,348,269 57
1887.....	1,531,850	1911.....	2,419,178 21
1888.....	1,839,869	1912.....	2,842,877 09
1889.....	1,963,123	1913.....	2,674,686 76
1890.....	2,009,637	1914.....	2,755,293 11
1891.....	1,806,389	1915.....	3,341,181 41
1892.....	2,042,198	1916.....	2,658,993 43
1893.....	1,694,930		
<i>Carried forward</i> ...	23,116,692	<i>Total</i>	68,280,479 52

STATEMENT

of the number and value of the Tugs, Gasoline, Sail or Row Boats, Nets, Spears, etc., used in the Fishing Industry of the Province of Ontario, during the year 1916.

	Number.	Value.
		\$ c.
Tugs, (2,975 tons)	114	512,530 00
Gasoline Launches	715	271,590 00
Sail or Row Boats	1,078	63,389 00
Gill Nets	6,174,310 yards.	448,599 65
Seines (35,383 yds.)	178	16,562 00
Pound Nets	963	421,530 00
Hoop Nets	1,208	29,514 00
Dip and Roll Nets	42	480 25
Baited Hooks	61,000	3,387 65
Spears	210	615 85
Freezers and Ice Houses	426	198,930 00
Piers and Wharves	207	59,890 00
<i>Total</i>		2,027,018 40

Number of men employed on Tugs 591
 Number of men employed on Gasoline Launches 1,438
 Number of men employed on Sail or Row Boats 1,563

3,592

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Jas. H. Maclellan Jr.
Government
Publications
 June 18, 1939

Twelfth Annual Report

OF THE

GAME AND FISHERIES DEPARTMENT

1918

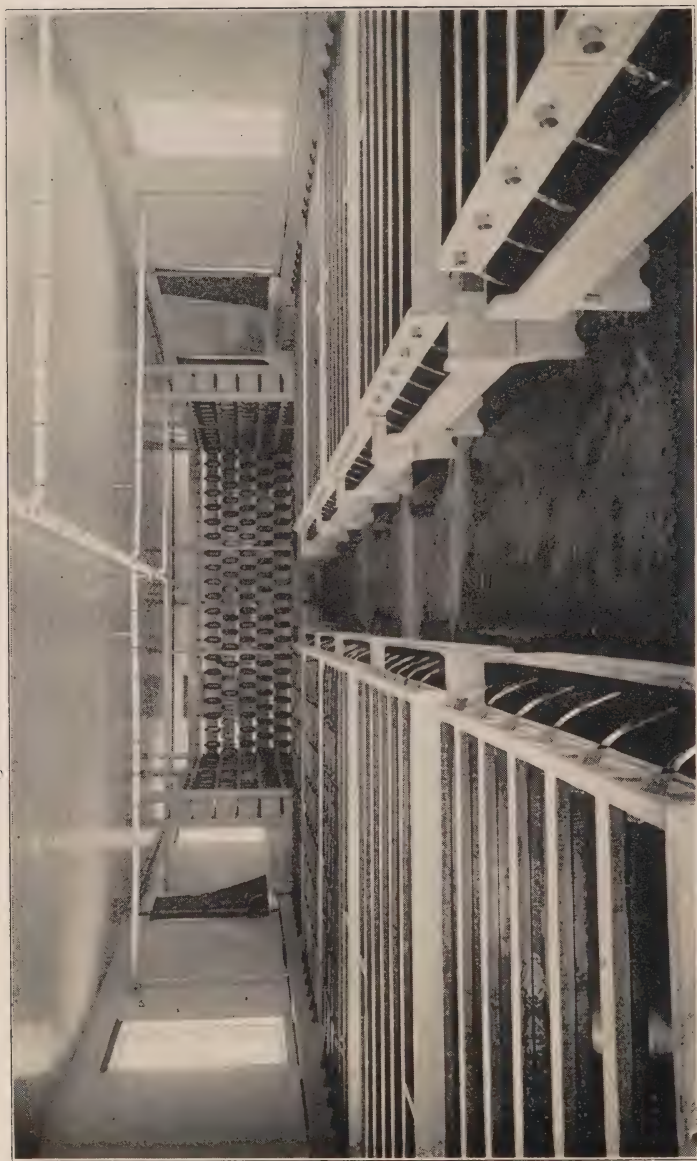
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1919



A portion of the interior of Provincial Hatchery at Port Arthur. Erected in 1918.

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To His Honour SIR JOHN STRATHEARN HENDRIE, K.C.M.G., C.V.O., a Colonel in the Militia of Canada, etc., etc., etc.

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Twelfth Annual Report of the Department of Game and Fisheries of this Province.

I have the honour to be,

Your Honour's most obedient servant,

F. G. MACDIARMID,

Minister of Public Works and Highways.

TORONTO, 20th March, 1919.

TWELFTH ANNUAL REPORT

OF THE

Department of Game and Fisheries of Ontario

To the Honourable F. G. MACDIARMID,

Minister of Public Works and Highways.

SIR,—I have the honour to submit the Twelfth Annual Report of the Department of Game and Fisheries, being for the fiscal year ending October 31st, 1918.

ENFORCEMENT OF LAWS AND REGULATIONS.

Every observer will admit that there is a better enforcement of the laws now than in earlier years and that the sentiment in favour of game and fish laws and their enforcement is steadily growing. The better the law is enforced the more it is respected by the public. The fines imposed and collected during the year, together with the proceeds from the sale of confiscations and other articles, amounted to \$14,883.15. Licenses and permits were issued by this Department for privileges as provided for in the Act and there are two reasons why licenses are purchased by the public. The first is because a large number realize the importance of upholding the Department and protecting the game, fish and birds and, by so doing, the extermination of these resources will be prevented and a supply insured for the generations to come. Another class who buy licenses merely do so with the idea of avoiding prosecution and, in doing so, become interested to the extent that they purchase thereafter from the first motive. Therefore the enforcement of the Act is the most potent factor in the upbuilding of the Department of Game and Fisheries and the preservation of the country's resources placed under its care.

The Migratory Birds Convention Act referred to in my last year's report, and which deals with the whole of Canada, is becoming better understood by the public in general and, with the better acquaintance of its provisions by publicity, I believe it is being well received and will have beneficial results.

GAME.

Plenty of moose and deer are reported in that part of the Province lying north and west of the French and Mattawa Rivers and generally satisfactory in the other parts of the Province which are inhabited by these animals. The number of non-resident deer licenses issued for this year shows an increase of 33 over the previous year, while the number of resident deer licenses issued shows a decrease of 2,975. The number of moose licenses issued shows an increase of 516 over that of the previous year. The decrease in the number of the resident deer licenses issued was no doubt caused mainly from the epidemic of influenza which prevailed

throughout the Province just at this season of the year but, from the fact that the fee for deer hunting licenses was increased to \$3.00 this year, there has been a gross gain in revenue in deer and moose licenses amounting to \$8,034.00.

Partridge.—The benefit of the existing close season has been shown in quite a marked degree in many sections of the northern part of the Province from the encouraging reports received of the increase in these game birds.

Ducks.—The reports received from various parts of the Province are satisfactory in regard to the number of ducks obtained for the past season.

Quail.—I regret to report that the quail appear to be very scarce throughout the Province.

Pheasants.—From reports received pheasants are still quite scarce in the Province.

FUR-BEARING ANIMALS.

The fur market has been exceptionally good throughout the past year and the prices obtained have been much above normal and, owing to these conditions, it has attracted many trappers and dealers to participate in the lucrative returns obtained from the sale of pelts of every description.

Beaver are still very plentiful and large catches have been reported.

Otter continue to be scarce.

Martin and Fisher from reports received show an inclination to decrease.

Muskrat are still plentiful in many parts of the Province.

I would strongly recommend the setting apart of a suitable area of considerable extent for the establishment of a game sanctuary which, in my opinion, could be found in some part of the middle west of the Province and which would tend to assure in a marked degree the continuity of an ample supply of all classes of game and fur-bearing animals which will be so necessary and valuable to those who come after the present generation.

Wolf.—Many reports have reached the Department bearing testimony to the fact that great inroads have been made into the deer and other game by these predatory animals in widely separated districts and the havoc caused appears to demand that some prompt and definite methods should be taken to overcome this great waste and I would, therefore, strongly recommend that a substantial increase be added to the bounty being paid at present which would have very beneficial results and encourage the trapper in exterminating the wolf.

FISH.

The commercial fishing, taking the Province as a whole, has shown an increase in catch over the previous year. The returns as presented by the license holders show a total catch for the year of 1916 of 36,205,360 pounds, while the 1917 catch as reported totals 42,834,551 pounds, being an increase of 6,629,191 pounds. The number of commercial licenses issued in 1916 were 2,251 and 2,220 licenses were issued for the year of 1917, being a decrease in the number of commercial fishing licenses of 31.

I am publishing herewith the report of the Sales Branch as submitted and which deals with the activities of this Department in supplying the various municipalities with Government fish at a fixed price.

HATCHERIES.

In accordance with my recommendation of last year I am pleased to report that a hatchery 38' x 76' has been built in Current River Park, Port Arthur, under the supervision of Mr. George H. Rapsey, Superintendent of this Department, and to whom I desire to give due credit. The building is well constructed and fully equipped for the hatching of both speckled and lake trout, whitefish, herring and pickerel with ideal conditions as to the source and supply of pure water and the hatchery, as a whole, is considered by the authorities to be as modern and efficient as any hatchery in the Dominion, having a capacity for 75,000,000 whitefish and 15,000,000 trout. The completion of this hatchery will place four hatcheries under the operation of this Department for the season of 1919.

I would recommend the erection of ponds for rearing speckled trout fry at Mount Pleasant and Port Arthur as better results can be obtained by rearing the fry until they attain the size of fingerlings and, when all danger of spring floods is over, a supply of natural food is more favourable.

I regret to report that, on account of the unfavourable weather conditions of last spring, the bass hatch proved a failure for the first time in ten years. Similar failures have been reported from other hatcheries outside of the Province and was due to the fact that the temperature of the water as late as July 6th, which is well beyond the normal period for the small mouth bass to hatch, did not register higher than 57 degrees F., a temperature too low for the bass to spawn in breeding ponds. The result has been that, instead of the bass preparing their nests and hatching as nature intended, they simply scattered their eggs which were a total loss. The water must have a temperature of at least 64 degrees F. before the small mouth bass will spawn properly.

The fall collection of spawn did not reach my expectations and, no doubt, the collection was greatly affected by adverse weather conditions and, in the north, on account of the prevailing epidemic of influenza. For the first time the Department has been successful in collecting 170,000 brook trout spawn for the Mount Pleasant Hatchery and 1,500,000 speckled trout spawn from the famous Nepigon stock for the Port Arthur Hatchery. The output of the new hatchery at Normandale consisted of 1,400,000 pickerel dore, 15,500,000 whitefish and 38,000,000 herring fry and were all planted in the waters of Lake Erie. Adding to these figures the hatch of 2,000,000 pickerel dore fry at the Port Carling Hatchery, which were placed in the Muskoka waters, makes a grand total of 56,900,000 as a total distribution by the Province. This is the first year that the Department undertook the propagation of fish other than game species and this distribution may be considered as a very creditable showing for the initial year.

ACKNOWLEDGMENT.

I wish to publicly express through you my appreciation of the hearty co-operation given by all of the Railway and Transportation Companies who have materially assisted in the inspection and enforcement of the Act by the various officers of this Department and in the matter of handling the Government fish car and distribution of fry wherever requested.

My thanks also extends to employees of the Department who have rendered faithful services and to other Departments of the Provincial Government for their assistance and co-operation and I refer particularly to the officers of the Provincial Police and the Officials and staff of the Forestry Branch.

I cannot close without reference to the loss of one of the staff in the person of Mr. W. S. Masson, a competent and efficient employee who fulfilled his highest duty by offering his services and life to his country in 1915 and who, I regret to say, paid the supreme sacrifice in the fall of 1918 on the battlefields of France.

The statistics mentioned in the report will be found in detail in statements published elsewhere herein.

All of which is respectfully submitted. I am

Your obedient servant,

D. McDONALD,

Deputy Minister of Game and Fisheries.

Department of Game and Fisheries, Sales Branch, Toronto.

TORONTO, February 19, 1919.

D. McDONALD, Esq.,

Deputy Minister of Game and Fisheries, Buildings.

DEAR SIR.—I beg to submit herewith report of the Sales Branch, Department of Game and Fisheries, for the year ending October 31st, 1918.

The unusual economic conditions resulting from the European War, which had created a world shortage of food, required prompt action upon the part of Governments. The demand made upon the food producing parts of the Empire for conservation and substitution quickly reached the Province of Ontario. Beef and bacon were required in increasing quantities by our brave soldiers; substitutes should be provided for the people at home.

Appreciating the position, and with characteristic promptness, the Government of the Province of Ontario launched a policy which had for its object the securing of fish from the waters of the Province, and placing same at fixed prices on the tables of the consumers. This plan embraced production, distribution, and Government control. In order that existing trade should not be greatly interfered with, and that increased production might be secured, several inland lakes, some of them being virgin waters, some having had fishing restrictions for a number of years, were fished under contract, Lakes Nipigon and Nipissing being the largest of these; the Government distributing the entire catch from these Lakes.

The first fish secured by the Government under this policy were distributed September, 1917, and a wonderful demand was at once assured, the demand being so great that it became apparent that a portion of the catch of the licensed fishermen was required to meet it. An authority stated in the year of 1911 that 95 per cent. of all fresh water fish procured in the Province had been exported to our neighbours to the south. It appeared reasonable to the Government that only a portion of the catch of the licensed fishermen should be retained for distribution in the Province. To this end a clause was placed in the license of each fisherman operating for 1918, requiring them to deliver to the Sales Branch any amount which might be demanded, such amount not to exceed 20 per cent. of the total catch. The fishermen were thus free to sell 80 per cent. of their catch in the best market obtainable.

The price to be paid the fishermen by the Government was based upon the average price of the previous five years. The fishermen with few exceptions gave loyal support to the Government measure, thus assisting in no little degree to make same a success. The fish which were distributed by the Government, taken from the fishermen, were secured from the Rainy River District, Lake Superior, Georgian Bay and North Channel, Lakes Huron, Erie and Ontario.

During the first year over three million pounds of fish have been handled by the Sales Branch. These fish have been sold by nearly six hundred fish dealers, and have been distributed in over two hundred municipalities throughout the Province, the distribution reaching nearly every important centre in the Province. It is admitted that the Government policy has assisted in reducing the high cost of living, an average of at least five cents per pound on all fish distributed being saved for the consumer. This in itself would amount to at least \$150,000.

Government advertising has made the eating of fish more popular. The Government arranged during the past year for demonstrations covering the preparing and cooking of fish; exhibitions have also been made of live fish, while moving pictures have been on exhibition showing the various phases of the fishing industry.

This wide advertising will undoubtedly have a marked effect upon the sale of fish throughout the Province in future years, benefiting the fisherman and the consumer, and giving the people of the Province an idea of the value of this great natural resource.

Yours truly,

S. L. SQUIRE,

Manager.

Statement of Revenue received from Game and Fisheries during the year ended
October 31st, 1918.

GAME.

Rondeau Park	\$2,551 31	
Royalty Coupons (Beaver and Otter)	27,308 60	
Trappers' Licenses	24,002 32	
Non-Resident Hunting Licenses	7,961 63	
Resident Deer Licenses	31,698 82	
Resident Moose Licenses	8,566 15	
Fur Dealers' Licenses	5,837 75	
Game Dealers' Licenses	623 00	
Hotel and Restaurant Licenses	346 00	
Cold Storage Licenses	126 00	
Guides' Licenses	930 00	
Fines	6,978 88	
Sales (Fur, etc.)	4,230 92	
		<u>\$121,161 38</u>

FISHERIES.

Fishing Licenses	\$111,014 68	
Fishery Royalties	8,759 05	
Angling Permits	14,063 22	
Fines	2,480 58	
Sales (fish, twine, etc.)	1,192 71	
		<u>\$137,510 24</u>

GOVERNMENT FISH.

Sales of fish, etc.	\$235,028 15	
		<u>\$235,028 15</u>
Total		<u>\$493,699 77</u>

WATERS STOCKED WITH QUANTITIES AND KINDS OF FISH PLANTED IN EACH.

1918.

Waters Stocked and Location.	Species.	Quantities.
Rideau Lake, Lanark and Leeds Counties	Lake Trout	60,000
Sydenham Lake, Frontenac County	Lake Trout	20,000
Loughboro Lake, " "	Lake Trout	20,000
Eagle Lake, " "	Lake Trout	30,000
White Lake, " "	Lake Trout	30,000
Charleston Lake, Leeds County	Lake Trout	50,000
Clear Lake, Renfrew County	Lake Trout	50,000
Westlemkoon Lake, Hastings County	Lake Trout	40,000
Lake Simcoe, North Shore, Simcoe County	Lake Trout	140,000
Fairy Lake, Muskoka District	Lake Trout	30,000
Mary Lake, " "	Lake Trout	30,000
Peninsular Lake, " "	Lake Trout	40,000
Lake of Bays, " "	Lake Trout	50,000
Long Lake, Parry Sound District	Lake Trout	10,000
Fairbanks Lake, Sudbury District	Lake Trout	40,000
Smoke Lake, Algonquin Park	Lake Trout	35,000
Cache Lake, " "	Lake Trout	65,000
Lake Nepigon, Thunder Bay District	Lake Trout	150,000
Kashabowie Lake, " "	Lake Trout	50,000
Long Lake, Kenora District	Lake Trout	25,000
Little Long Lake, " "	Lake Trout	25,000
Streams at St. Williams, Norfolk County	Brown Trout	15,000
Stream at Hespeler, Waterloo County	Brown Trout	15,000
Pond at Glencoe, Middlesex County	Brown Trout	10,000
Whiteman's Creek, Brant County	Brown Trout	4,000
Streams in vicinity of Waterloo, County Waterloo	Brook Trout	60,000
Streams in vicinity of Simcoe, Norfolk County	Brook Trout	50,000
Valens Creek, Wentworth County	Brook Trout	20,000
Holstein Creek, Grey County	Brook Trout	20,000
Spring Creek, Mt. Forest, Grey County	Brook Trout	10,000
Streams in vicinity of Markdale, Grey County	Brook Trout	50,000
Needway Creek, Middlesex County	Brook Trout	20,000
Bronte Creek, Halton County	Brook Trout	50,000
Saugeen River, Durham County	Brook Trout	20,000
Rocky Saugeen, " "	Brook Trout	40,000
Grand Lake, Algonquin Park	Brook Trout	10,000
Streams in vicinity of Havelock, Peterborough County	Brook Trout	50,000
Streams at Caledon Lake, Peel County	Brook Trout	2,500
Lake Simcoe, Brough's Creek and Narrows at Atherley, Simcoe County	Rainbow Trout	20,000
Gun Lake at Minaki Station, Kenora District	Bass (Parent)	131
Muskoka Lakes, Muskoka District	Pickarel	2,000,000
Lake Erie	Pickarel	1,400,000
Lake Erie	Whitefish	15,500,000
Lake Erie	Herring	38,000,000
Total		58,356,631
Total Lake Trout		990,000
" Brown Trout		44,000
" Brook Trout		402,500
" Rainbow Trout		20,000
" Black Bass (Parent)		131
" Pickarel		3,400,000
" Whitefish		15,500,000
" Herring		38,000,000
Total		58,356,631

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1917, in the Public

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Kenora and Rainy River.</i>			\$			\$			\$			\$
1	Lake of the Woods.....	5	89	8,500	13	38	14,145	75	31	1,225	25	46,350	7,580
2	Long, Big Garson, Oneman and Crow Lakes.....					5	1,325	10	4	170	4	4,300	540
3	Shoal,Eagle, Deer and Dryberry Lakes.....					9	3,350	18	4	140	4	19,300	3,140
4	Raleigh, Sandy, Basket, Indian and Orang Outang Lakes.....					3	800	3	1	20	2	8,000	1,090
5	Malachi, Bussard, Obabicon, Lawrence and Sturgeon Lakes.....					7	1,910	12	1	20	2	13,000	1,640
6	Lac Sue'e and Minnitakie Lakes.....					3	950	7	2	200	4	10,000	930
7	Lake Nepigon.....	1	20	2,000	6	3	1,150	8	3	120	4	21,800	2,172
8	Rainy Lake.....					17	7,500	19	12	340	12	19,983	2,500
9	Clearwater, Tuttle, Trout Perch and Namaken, Lakes.....					3	950	6	2	70	3	12,500	2,270
	Totals.....	6	109	10,500	19	88	32,380	158	60	2,305	60	155,233	21,862

Return of the kinds, quantities and values of fish caught during the

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Kenora and Rainy River.</i>								
1	Lake of the Woods.....		167,920	1	161,707		7,865	499,896	496,777
2	Long, Big Garson, Oneman and Crow Lakes.....				7,988		8,230	2,060	
3	Shoal, Eagle, Deer and Dryberry Lakes.....				175,487		27,236	47,150	122,730
4	Raleigh, Sandy, Basket, Indian and Orang Outang Lakes.....				23,295		931	2,855	4,836
5	Malachi Bussard, Obabicon, Lawrence and Sturgeon Lakes.....				18,681		13,299	13,751	18,100
6	Lac Suele and Minnitakie Lakes.....			20	118,137		1,500	31,811	70,178
7	Lake Nepigon.....				39,103		40,123		5,002
8	Rainy Lake.....				102,568			155,159	186,060
9	Clearwater, Tuttle, Trout, Perch and Namaken Lakes.....			2	33,752	2	12,570	34,677	57,970
	Totals.....		167,920	23	680,717	2	111,804	787,359	961,653
	Values.....		\$ c. 8,396 00	\$ c. 230 00	\$ c. 68,071 70	\$ c. 25 00	\$ c. 11,180 40	\$ c. 62,988 72	\$ c. 96,165 30

FISHERIES.

Quantity and value of all fishing materials and other fixtures employed in the fishing Waters of Kenora and Rainy River.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....	32	10,060	28	2,700	.....	.....	.....	.....	.....	.....	19	8,730	21	4,565
.....	6	230	.....	.....	.....	.....	.....	.....	2	275	3	125
.....	6	1,150	5	450
.....	6	450	.....	.....
.....	4	1,200	1	50
.....	6	825	5	600
.....	22	4,950	.....	.....	.....	.....	.....	.....	.....	.....	7	1,450	4	900
.....	7	1,500	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	61	17,050	34	2,930	.....	.....	.....	.....	.....	.....	50	14,080	39	6,690

year 1917, in the Public Waters of Kenora and Rainy River Districts.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
9,926	56,825	.....	143	394,544	50	.....	139,720 94
5,320	8,000	.....	10,000	563	.....	4,287 60
.....	6,130	.....	.....	14,822	.....	.....	37,426 20
.....	5,000	.....	.....	1,000	.....	.....	3,484 60
.....	4,105	.....	.....	4,125	.....	.....	6,565 63
.....	4,734	.....	.....	18,000	.....	.....	22,910 42
.....	30 225	.....	.....	9,934 05
2,650	679	88,052	.....	30	105,602	117	677	52,793 99
2,564	9,599	.....	.....	14,320	00	.....	14,974 90
20,460	679	174,145	8,300	173	592,638	790	677	292,098 33
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
3,069 00	33 95	10,466 70	640 00	3 46	29,631 80	790 00	406 20	292,098 33

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1917,

Number.	District.	Fishing Material.											
		Tugs.				Gasolene Launches			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men	No.	Value.	Men.	Yards.	Value
Lake Superior.													
1	Thunder Bay	5	92	\$ 17,700	41	1	300	1	6	\$ 540	9	146,150	\$ 9,199
2	Rosport	5	75	12,500	17	2	700	4	9	700	14	116,500	8,400
3	Port Arthur, Port Coldwell and Lac Des Milles Lac.....	3	86	9,700	16	2	550	6	1	75	2	107,000	7,060
4	Jackfish Black Bay, Big Trout Bay, Jarvis Bay and Oiseau Bay.....								8	455	8	16,700	918
5	Shanagash Island, Wilson Island, Silver Islet, Kashabowie Lake, and Evelyn Island					1	250	1	3	325	4	11,400	1,210
6	Jean Pierre, McKellars, Pine, Newash Points and Muskeg Lake	1	25	3,000	4	1	400	1	4	235	9	56,700	6,700
7	Brodier Island, Arrow Lake, Mc- Leans Point, Carpenters Beach and Whitefish Lake.....								5	450	6	9,600	591
8	Pays Platt River, Round Lake, Root Point, Welcome Island and Long Lake					1	100	2	6	565	8	15,000	1,910
9	Magnet, Bignell, Gratto, Nuttals Points and Salter Island					1	350	2	4	350	5	14,000	840
10	Kama Station, Point Edward, Moffatts' Straits.....	1	10	1,000	3	1	300	1	2	125	2	18,000	1,300
11	Kaministeguea River, Steel River and Pilot Harbour	1	15	2,000	6				2	135	4	2,000	50
12	Michipicoten Island, Mamainse Point.....	1	46	9,500	14	5	2,600	13	3	110	6	121,700	12,040
13	Goulais Bay, Gros Cap					6	2,650	13	12	545	22	84,600	13,500
14	Batchawana Bay, Gargantan and Richardson's Harbour	2	71	12,500	19	2	1,200	4	9	390	16	159,300	13,582
15	Parisian Island, Sandy Island and Rudderhead Point					3	2,500	13	1	35	2	3,000	220
Totals.....		19	420	67,900	120	26	11,900	61	75	5,035	117	881,650	77,520

Return of the kinds, quantities and values of fish caught

Number.	District	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickrel, or Dore.
<i>Lake Superior.</i>									
1	Thunder Bay	brls. 850	lbs 1,069,200	brls. 5	lbs. 44,099	brls. 12	lbs. 167,485	lbs. 235	lbs. 2,705
2	Rosport	1,016	240,000		5,925	4	193,587		19,210
3	Port Arthur, Port Coldwell and Lac Des Milles Lac		513,165		29,245	16	272,061	5,595	24,935
4	Jackfish, Black Bay, Big Trout Bay, Jarvis Bay and Oiseau Bay	179	2,068	3	13,120	34	29,735	2,758	665
5	Shanagash Island, Wilson Island, Silver Islet, Kashabowie Lake and Evelyn Island		10,000		2,300	501	46,045	2,000	450
6	Jean Pierre, McKellars, Pine, Newash Points and Muskeg Lakes	220	499,000		33,140	4	70,390	5,400	
7	Brodier Island, Arrow Lake, McLeans Point, Carpenters Beach and Whitefish Lake	51		2	6,622	8	17,849	45	
8	Pays Platt River, Round Lake, Root Point, Welcome Island and Long Lake	113	25,000		7,800	4	27,040	50	2,210
9	Magnet, Bignell, Gratto, Nuttals Points and Salter Island				1,930	5	27,370	10	170
10	Kama Station, Point Edward, Moffatts Straits	204	61,000		17,655	4	72,425	20	10,490
11	Kaministiquia River, Steel River and Pilot Harbour		12,000		18,083	6	85,320	44	5
12	Michipicoten Island, Mamainse Point	1			42,299	116	279,652	400	
13	Goulais Bay, Gros Cap	20	9,750	16	109,714	18	122,271	65	232
14	Batchawana Bay, Gargantan and Richardson's Harbour				50,532	8	216,473	300	
15	Parisian Island, Sandy Island and Rudderhead Point		2,018		63,993		33,254	884	9,010
Totals		2,655	2,443,201	26	446,457	743	1,660,957	17,806	70,070
Values		\$ c. 26,550 00	\$ c. 123,160 05	\$ c. 260 00	\$ c. 44,645 70	\$ c. 7,430 00	\$ c. 166,095 70	\$ c. 1,424 48	\$ c. 7,007 00

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake Superior

Fishing Material.												Other fixtures used in fishing.				
Seines			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hoops.	Value.	No.	Value.	No.	Value.	No.	Value.
.....	10	\$ 2,200	.....	.....	.....	.....	.....	.....	.....	.....	2	\$ 1,030	3	\$ 275
.....	9	1,900	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	6	1,500	.....	.....	.....	.....	.....	.....	.....	.....	3	2,600	2	850
.....	4	800	.....	.....	.....	.....	.....	.....	.....	.....	1	50	.....	.....
.....	1	200	.....	.....	.....	.....	.....	.....	.....	.....	3	155	.....	.....
.....	1	250	.....	.....	.....	.....	.....	.....	.....	.....	1	100	.....	.....
.....	2	300	1	10
.....	1	100	.....	.....
.....
.....	7	1,100	.....	.....	.....	.....	.....	.....	.....	.....	1	600	1	200
.....	7	3,300	.....	.....	.....	.....	.....	.....	.....	.....	2	300	1	500
.....	1	200	1	500
.....	2	100	1	75
.....
.....	12	7,000	.....	.....	.....	.....	.....	.....	.....	.....	6	4,600	2	1,250
.....	57	18,250	.....	.....	.....	.....	.....	.....	.....	.....	25	10,135	12	3,660

during the year 1917, in the Public Waters of Lake Superior.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs. 50	lbs. 400	lbs. 1,232	lbs.	lbs.	No.	\$ c.
.....	83,655 80
.....	41,076 20
50	58,902 45
140	400	.....	.....	.....	6,887 04
.....	1,000	.....	.....	11,049 50
.....	300	.....	.....	.....	37,981 00
.....	5,250	.....	.....	3,328 20
.....	25	.....	.....	.....	.....	.....	6,136 00
.....	2,997 80
25	100	15,252 35
797	300	.....	.....	11,138 87
.....	146,866	.....	.....	40,745 40
.....	583	.....	.....	24,282 55
.....	164,895	.....	.....	35,054 25
1,070	3,158	22	.....	11,538 52
5,082	75	700	232,774	22	100	393,075 93
\$ c.	\$ c.	\$ c.	\$ c.	14 00	\$ c.	22 00	60 00	\$ c.
762 30	6 00	.....	16,638 70	.....	.....	393 075 9*

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1917, in the

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value
	Lake Huron, North Channel.			\$		\$			\$			\$	
1	Thessalon							8	385	15		28,000	1,905
2	Spanish, St. Joseph's Island, Spragge and Cedar Island.....				5	2,400	10	11	475	17		27,250	1,855
3	Nesterville, Algoma Mills, Blind River and John's Island.....				2	700	5	3	90	4		9,300	620
4	Bruce Mines, Birch Island and Lake Lousin.....							6	200	8		8,880	700
5	Little Laloche Lake, Mississauga River and Patrick Point.....				2	1,200	5	4	225	2		2,000	100
6	Buswell's Point, Flat Point and Little Detroit.....	3	62	11,900	12	2	800	2	6	410	.....	3,000	150
7	Kagawong, South Bay Mouth and Squaw Island	8	173	29,000	42	1	530	3	5	435	7	435,500	27,960
8	Killarney and Duck Islands.....	1	24	7,000	6	8	4,350	18	6	410	9	116,500	16,297
9	Fitzwilliam Island, Little Cur- rent and Meldrum Bay.....	5	132	30,000	27	2	450	4	3	250	6	289,500	11,800
10	Strawberry, Bedford, Rabbit, Cochrane Islands and Providence Bay.....	1	10	2,000	5	2	1,000	5	6	470	10	50,000	3,380
11	Sheguindah and Gore Bays, Berry, Round Islands and Wabino Channel	1	6	500	3	2	400	4	8	395	16	27,500	1,570
12	Ten Mile Point, Centre, Hamilton Islands and Manitowaning Bay.....					5	3,650	11	.....	.....	.....	.....	.....
13	Wekwemikong Bay, Big Burnt Island, Laloche Island, Gran- dine Point					4	2,350	11	.....	.....	.....	.....	.....
	Totals	19	407	80,400	95	35	17,800	78	66	3,745	94	997,430	66,337

Return of the kinds, quantities and values of fish caught during

Number	District.	Herring, salted.		Herring, fresh.		Whitefish, salted.		Whitefish, fresh.		Trout, salted.		Trout, fresh.		Pike.		Pickeral, or Dore.	
		brls.	lbs.	brls.	lbs.	brls.	bs.	brls.	bs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.
	Lake Huron, North Channel.																
1	Thessalon		3,100				15,140			3	36,206		9,958			2,073	
2	Spanish, St. Joseph's Island, Spragge and Cedar Island.....	5	8,210				44,337	5		26,694	21,792		14,871				
3	Nesterville, Algoma Mills, Blind River and John's Island.....		5,000				1,873			5,395	7,652		1,095				
4	Bruce Mines, Birch Island, and Lake Lousin.....	5	4,650	200			2,089	29		4,424	9,049		430				
5	Little Laloche Lake, Mississauga River and Patrick Point.....		1,150				11,037			17,431	3,712		11,124				
6	Buswell's Point, Flat Point and Little Detroit.....		16,029				8,793			20,252	5,902		101,097				
7	Kagawong, South Bay Mouth, and Squaw Island	8	400				149,248	8		114,091	9,385		1,515				
8	Killarney and Duck Islands.....						135,368			460,377	13,456		10,999				
9	Fitzwilliam Island, Little Current and Meldrum Bay.....			4			84,480	21		316,029	8,100		298				
10	Strawberry, Bedford, Rabbit, Cockburn Islands and Providence Bay.....						30,141			118,924	3,232		17,380				
11	Sheguindah and Gore Bays, Berry, Round Islands and Wabino Channel						21,703			8,891	9,299		2,866				
12	Ten Mile Point, Centre, Hamilton Islands, and Manitowaning Bay.....						30,713			31,525	7,782		48,522				
13	Wekwemikong Bay, Big Burnt Island, Laloche Island, Grandine Point.....		25				59,113			15,515	3,169		48,141				
	Totals	18	38,564	211			594,035	66		1,475,754	112,488		260,332				
	Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		180 00	1,928 20	2,110 00	59,403 50	660 00	147,575 40	8,999 04	26,032 1								

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the Public Waters of Lake Huron, North Channel.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
													2	\$ 300	1	\$ 200
			10	2,300									6	750	3	350
													2	200		
													1	50		
			14	5,300									3	900	2	1,300
			23	6,500									5	2,100	4	2,700
			9	6,800									3	710	2	500
			13	14,000									1	500	1	500
			8	3,000									2	200	2	2,000
			14	7,500									2	350	1	100
			7	2,800									1	250		
			20	6,800									3	925	4	900
			14	7,400									2	650	3	600
			132	61,900									33	7,885	23	9,150

the year 1917, in the Public Waters of Lake Huron, North Channel.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and Course fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
		3,254	100			5,026			6,742 54
508		12,159				39,823			12,519 36
		370				5,088			1 971 36
31		5,200				6,836	14		4,611 17
3,258						58,764			7,740 56
4,977						48,843			17,476 51
		2,442	51,627			11,513			61,312 17
216		123	60,009	100		1,820			65,558 43
53						16,650			41,819 25
1,012		500				19,294			18,024 56
286		262				63,923			7,341 97
556		315				76,478	39		15,661 01
1,206		126		22	68	7,851			13,115 14
12,103		24,731	111,737	122	68	361,909	53		274,804 03
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
815 15	1,236 55	6,704 22	9 76	1 36	18,095 45	53 00			274,804 03

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1917,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
Georgian Bay.													
				\$			\$			\$			\$
1	Byng Inlet.....	1	27	5 000	5	3	175	8	2	35	3	68,000	2,750
2	Parry Sound.....	4	61	19,000	17	7	2,250	8	4	280	6	258,300	23,050
3	Waubauskene.....								8	740	12	12,000	1,280
4	Penetanguishene.....					2	700	4	6	220	10	15,000	1,335
5	Collingwood.....	3	61	12,100	16	9	2,135	13	4	365	6	211,100	11,675
6	Meaford to Owen Sound Bay....	6	163	25,500	26	29	12,595	61	20	1,600	22	258,760	16,240
7	Colpoys's Bay to Tobermory.....	2	45	6,000	11	13	6,750	19	6	185	12	76,514	6,364
	Totals.....	16	357	67,600	75	60	24,605	113	50	3,425	71	899,374	62,694

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh	Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls	lbs.	lbs.	lbs.
Georgian Bay.									
1	Byng Inlet.....			41	127,070		32,400	18,424	38,153
2	Parry Sound.....			3	234,792		208,841	5,070	8,120
3	Waubauskene.....	10	3,300		5,275	2		16,160	8,200
4	Penetanguishene.....	26	1,900	15	16,586	36	19,310	800	125
5	Collingwood.....	2	31,500		14,745	100	123,116	41,233	
6	Meaford to Owen Sound Bay....		25,660	402	14,400	274	581,756		
7	Colpoys's Bay to Tobermory.....		25,000		2,317	212	265,455		
Totals.....		38	90,360	466	415,185	624	1,230,878	81,687	54,598
Value.....		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		380 00	4,518 00	4,660 00	41,518 50	6,240 00	123,087 80	6,534 96	5,459 80

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the fishing in the Public Waters of the Georgian Bay.

Fishing material.														Other fixtures used in fishing.			
Seines.			Pound Nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears		Freezers and Ice Houses.		Piers and Wharves.		
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.	
		\$		\$		\$		\$		\$		\$		\$		\$	
.....	.....	.....	8	8,050	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	500
1	50	50	.....	.....	25	345	.....	.....	.....	.....	.....	.....	5	2,275	6	1,150
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	500	1	100
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	400	2	250
.....	
.....	.....	.....	.....	.....	.....	.....	.....	.....	12,600	1,105	.....	.....	10	1,225	8	1,025
.....	.....	.....	.....	.....	.....	.....	.....	.....	4,800	390	.....	.....	2	550	3	275
1	50	50	8	8,050	25	345	.....	.....	17,400	1,495	.....	.....	21	4,650	21	3,300

during the year 1917. in the Public Waters of the Georgian Bay.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders	- Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
1,120	4,039	7,200	20	.....	22,275 00
.....	2,015	.....	6,940	7,829	16,055	.....	.....	45,610 90
.....	200	500	.....	.....	.....	.....	.....	4,590 58
2,100	550	.....	.....	.....	7,250	.....	.....	4,571 10
.....	150	16,500	.....	.....	1,250	390	.....	20,924 74
19	159,828	.....	.....	1,055	.....	.....	68,718 60
.....	39,792 48
3,239	2,915	176,828	6,940	11,868	32,810	410	.....	206,483 40
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
485 85	145 75	10,609 68	555 20	237 36	1,640 50	410 00	.....	206,483 40

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1917,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton-nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake Huron (Proper).</i>			\$			\$			\$			\$
1	Tobermory to Southampton	9	203	30,100	50	9	4,075	22	12	1,460	21	462,100	31,095
2	Southampton to Pine Point	1	50	3,000	6	2	900	6	1	50	2	88,000	4,350
3	County of Huron	2	36	11,000	5	14	5,900	33	6	650	20	168,940	16,520
4	County of Lambton (including River St. Clair)					32	8,675	59	28	833	36	.....	.....
	Totals	12	289	44,100	61	57	19,550	120	47	2,993	79	719,040	51,965

Returns of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickered, or Dore.
	<i>Lake Huron (Proper).</i>	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Tobermory to Southampton	316	37,768	32	16,506	338	532,967	185	408
2	Southampton to Pine Point		7,290	50	200		47,550	150	.....
3	County of Huron	150	137,293	.....	9,488	6	191,767	50	11,042
4	County of Lambton (including River St. Clair)		194,464	.....	33,941	.....	10,794	1,352	174,473
	Totals	466	376,815	82	60,135	334	783,078	1,737	185,923
	Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		4,660 00	18,840 75	820 00	6,013 50	3,340 00	78,307 80	138 96	18,592 30

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Huron (Proper).

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....			2	400	.....		.....		.....		.....		4	2,800	1	200
.....			9	1,400	.....		.....		.....		.....		1	300	.....
.....					.....		.....		.....		.....		13	1,025	4	85
5	335	420	56	20,550	.....		7	68	.....		.....		2	300	1	50
5	335	420	67	22,350	.....		7	68	.....		.....		20	4,425	6	325

during the year 1917, in the Public Waters of Lake Huron (Proper).

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
10	25,600	422,261	.....	.....	2,500	.....	.....	90,385 46
.....	2,550	97,000	.....	500	.....	.....	.....	11,609 00
7,782	81,737	11,333	.....	.....	37,868	50	.....	37,535 88
10,614	9,530	.....	556	4,058	83,288	873	127	39,060 00
18,406	119,417	530,594	556	4,558	123,656	923	127	178,598 34
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
2,760 90	5,970 85	31,835 64	44 48	91 16	6,182 80	923 00	76 20	178,598 34

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1917,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	Lake St. Clair.					\$			\$			\$	
1	Kent County (including River Thames).....					30	9,100	50	33	2,130	26		
2	Essex County.....					25	6,250	39	48	2,075	82		
3	Detroit River.....					5	2,700	26	32	801	64		
	Totals.....					60	18,050	115	113	5,006	172		

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake St. Clair.</i>								
1	Kent County (including River Thames)							37,798	26,221
2	Essex County				19,250			11,225	34,158
3	Detroit River.....				11,200			9,000	4,010
	Totals.....				30,450			58,023	64,389
	Values		\$ c.		\$ c.			\$ c.	\$ c.
					3,045 00			4,641 84	6,438 90

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake St. Clair.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
17	4,300	2,165	.....	.....	106	8,060	2	10	700	7	.....	.....	22	4,450	11	1,325
20	4,550	1,840	10	3,450	.....	.....	.....	.....	1,200	120	.....	.....	14	6,050	.....	.....
33	4,099	2,593	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	4,175
70	12,949	6,598	10	3,450	106	8,060	2	10	1,900	127	.....	.....	36	10,500	17	5,500

during the year 1917, in the Public Waters of Lake St. Clair.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and course fish.	Caviare.	Sturgeon bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
500	89,865	.....	41,837	58,000	383,296	.....	.....	33,885 95
13,850	39,450	.....	21,075	14,450	271,900	280	.....	26,138 80
.....	2,450	.....	550	30,500	30,495	.....	.....	4,542 25
14,350	131,765	.....	63,462	102,950	685,691	280	.....	64,567
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.		\$ c.
2,152 50	6,588 25	.....	5,076 96	2,059 00	34,284 55	280 00	.....	64,567

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the fishing industry during the year 1917,

Number.	District.	Fishing material.											
		Tugs				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value	Men.	No.	Value	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake Erie.</i>			\$			\$			\$			\$
1	Pelee Island.....	2	91	20,000	13	11	7,600	35	20	690	12	75,950	12,950
2	Essex County.....					38	25,500	70	30	730	6	23,000	2,100
3	Kent County, West.....	2	49	15,000	15	51	19,000	67	13	1,000	3	130,000	11,000
4	Kent County, East.....					26	11,525	74	16	1,215	10	1,200	350
5	Elgin County, West.....	2	89	15,000	17	15	7,450	56	5	240	1	88,000	9,350
6	Elgin County, East.....	19	600	130,000	98	7	4,500	30				576,750	174,900
7	Norfolk County.....	13	370	96,200	81	27	12,100	70	76	3,055	190	289,000	23,330
8	Haldimand County (to and in- cluding the Grand River)....	8	202	36,400	32	21	11,050	52	24	770	25	165,100	15,785
9	Port Maitland to Port Colborne.....					1	900	3				6,000	750
10	Port Colborne to Niagara Falls.....								18	656.50	19	17,200	801
	Totals.....	46	1,401	312,600	256	176	99,625	457	202	8,356.50	266	1,370,200	251,916

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickerei, or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake Erie.</i>								
1	Pelee Island.....		626,264		157,827			950	16,429
2	Essex County.....		775,649		366,491			27,296	87,961
3	Kent County, West.....		2,523,124		45,066				33,712
4	Kent County, East.....		1,598,514		32,561				20,247
5	Elgin County, West.....		1,362,119		53,212			712	19,457
6	Elgin County, East.....		3,404,750		190,354			22,985	2,085
7	Norfolk County.....		2,213,882		187,117		1,257	85,588	27,226
8	Haldimand County (to and in- cluding the Grand River).....		1,642,729		205,750		1,087	3,678	4,546
9	Port Maitland to Port Colborne.....		9,308		1,143			373	
10	Port Colborne to Niagara Falls.....		1,500					100	15,796
	Totals.....		14,157,839		1,239,521		2,344	141,682	227,459
	Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
			707,891 95		123,952 10		234 40	11,334 56	22,745 90

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Erie.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
4	1,500	350	29	6,000									4	8,300		
6	1,434	410	180	85,250	2	25	2	4					21	16,250	6	750
2	75	300	128	79,200									25	38,700	12	4,525
5	2,000	850	75	48,500									18	9,550	14	2,115
			79	41,500									18	11,640	8	4,950
			42	21,200			4	23	3,500	76			9	13,050	6	8,400
44	17,150	10,010	76	31,700	23	458.50			700	20			21	13,750	11	2,000
5	395	210	66	28,500			15	140					17	6,510	5	1,200
1	50	17.25							4,220	75.75						
67	22,604	12,147.25	675	341,850	25	481.50	21	167	8,420	171.75			133	117,750	62	23,940

during the year 1917, in the Public Waters of Lake Erie.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue).	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
6,340	.....	62,297	.....	1,598	51,893	31,088	717	.....	24,315	58,749 25
8,903	.....	197,092	.....	2,224	168,283	237,053	255	.....	95,684	122,821 01
1,098	.....	203,665	.....	76	8,129	93,023	35	.....	109,962	160,232 96
1,209	.....	146,386	.....	367	50,110	32,124	412	.....	63,186	111,705 01
942	.....	117,910	.....	959	214	25,095	29	.....	48,386	87,669 96
1,329	1,088	124,683	.....	19,426	269	36,122	544	.....	47,982	206,527 14
7,028	17,848	109,984	12,225	11,712	335,453	128,036	7782	.....	53,922	167,677 44
12,922	.....	27,266	.....	345	38,766	70,525	487	.....	122,039	123,890 66
.....	.....	230	.....	.....	.....	830	.....	.....	.....	662 54
7,392	.....	5,900	.....	.....	43,636	15,090	262	24	.....	4,370 02
47,163	18,936	995,413	12,225	36,707	666,773	668,986	3,149	24	565,476	1,034,305 99
\$ c.		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
7,074 45	1,136 16	49,770 65	733 50	2,936 56	13,335 46	33,449 30	3,149 00	14 40	56,547 60	1,034,305 99

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1917

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake Ontario.</i>			\$			\$			\$			\$
1	Lincoln County.....	1	29	12,000	4	28	10,250	53	9	245	14	131,670	11,526
2	Welland County.....					12	10,000	26	10	515	16	5,780	7,580
3	Wentworth County.....					23	7,425	46				119,500	7,300
4	Halton County.....					4	1,600	5				17,000	1,900
5	Peel County.....					7	2,350	16	19	665	31	18,500	3,335
6	York County.....					4	1,025	8	4	230	9	15,300	1,530
7	Ontario County.....					3	1,150	4	3	145	5	51,000	5,690
8	Durham County.....	1	20	6,000	5	3						59,400	4,200
9	Northumberland County.....					12	3,500	24	29	1,230	46	296,860	25,085
10	Prince Edward County.....					50	13,005	89	94	3,208	150	79,600	7,840
11	Bay of Quinte (Proper).....					4	425	9	120	7,934	209	66,200	3,408
12	Bay of Quinte (Eastern Channel).....					9	2,350	18	24	753	32	39,000	1,450
13	Wolfe Island and Vicinity.....					12	2,700	25	30	690	39		
	Totals.....	2	49	18,000	9	168	55,780	323	342	12,615	551	902,810	80,882

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.		Herring, fresh.		Whitefish salted.		Whitefish, fresh.		Trout, salted.		Trout, fresh.		Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Lake Ontario.</i>														
1	Lincoln County.....		598,573				91,864				8,500		160		21,480
2	We land County.....												340		210
3	Wentworth County.....		150,200				68,500				3,800				780
4	Halton County.....		306,650				37,200				15,800				
5	Peel County.....		10,868				14,000				23,381				
6	York County.....		1,653				28,100				2,375				20
7	Ontario County.....		1,060				47,502				3,120		691		
8	Durham County.....		5,280		5		54,987				9,792		200		
9	Northumberland County.....	10	41,882				67,467				53,471		67,503		
10	Prince Edward County.....	21½	174,307	200			463,590	10			2,5,037		23,701		
11	Bay of Quinte (Proper).....	6	600,596	3			155,100				1,050		162,083		23,778
12	Bay of Quinte (Eastern Channel).....	2	38,220	1			106,825				51,545		2,880		5,842
13	Wolfe Island and Vicinity.....	1½	900	1			5,310	13½			16,050		22,819		1,550
	Totals.....	41	1,930,186	210			1,140,445	24			463,924		280,377		53,660
	Values.....	\$ 410 00	\$ 96,509 30	\$ 2,100 00			\$ 114,044 50	\$ 240 00			\$ 46,392 40		\$ 22,430 16		\$ 5,366 00

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Ontario.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
2	163	\$ 135		\$		\$		\$	600	\$ 2,150		\$	4	\$ c. 1,100 00	1	\$ 100
8		413					9	4			125	375	*1,402	2,300 50		
1	200	75											23	2,270 00		
													2	250 00		
11	2,059	905														
3	170	83											1	50 00		
													1	25 00	2	250
													10	510 00	1	50
2	175	70			73	2,490							6	1,274 00		
					125	3,555 50			1,350	107						
					374	6,006									5	117
1	30	7			8	70			1,300	25 50						
8	160	223			81	2,050			2,600	56			5	575 00	5	775
36	3,676	1,911			661	14,171 50	9	43	5,850	210	125	375	*1,454	8,404 50	14	1,292

* 1,400 of these are spearing houses, value \$1,700 50.

during the year 1917, in the Public Waters of Lake Ontario.

Sturgeon.	Eel.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
2,141	390	2,580		1,200	50	30,920	63			44,305 40
		25		15	985					70 35
		780			57,301	28,210				17,413 52
					1,000	3,000				20,802 50
						3,000				4,431 80
		50			250,000	5,795				8,425 25
					1,343	3,750				5,384 84
					980	12,431				7,449 05
		17,388		38,414	3,900	90,950				28,707 96
	7,530	29,317		35,179	47,958	154,881				101,353 09
	26,343	144,120		124,595	24,532	358,801				101,024 89
	72,356	2,320		1,700	400	1,800				19,109 60
	2,700	17,043		24,245	2,800	24,176				9,398 97
120	16,715									
2,261	126,034	213,623		225,348	391,249	717,714	63			367,876 22
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
339 15	7,562 04	10,681 15		18,027 84	7,824 98	35,885 70	63 00			367,876 22

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats fishing industry during the year 1917,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Inland Waters.</i>			\$		\$			\$				\$ c.
1	Frontenac County				3	700	3	32	820	38			
2	Lanark and Leeds Counties.....				13	5,200	23	67	2,749	87			
3	Russell, Grenville, Prescott, Peter- boro and Stormont Counties.....				4	2,250	7	21	435	22	1,200		50
4	Lake Simcoe				5	3,300	7	14	320	14			
5	Timiskaming and Nipissing Dis- tricts.....				7	3,100	18	19	1,120	16	24,600		2,775
	Totals.....				32	14,550	58	153	5,444	177	25,800		2,825

Return of the kinds, quantities and values of fish caught

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
	<i>Inland Waters.</i>								
1	Frontenac County.....							15,382	
2	Lanark and Leeds Counties.....							16,315	
3	Russell, Grenville, Prescott, Peter- boro and Stormont Counties...							2,150	2,100
4	Lake Simcoe		294		10,115		14,050		1,313
5	Timiskaming and Nipissing Dis- tricts.....	1	9,212	1	27,061		2,195	42,364	75,360
	Totals.....	1	9,506	1	37,176		16,245	76,211	78,773
	Values	\$ c. 10 00	\$ c. 475 30	\$ c. 10 00	\$ c. 3,717 60		\$ c. 1,624 50	\$ c. 6,096 88	\$ c. 7,877 30

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Inland Waters.

Fishing material.													Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$ c.		\$		\$ c.		\$		\$		\$
5	45	80	.....	.....	75	2,160	.....	.....	400	600 00	.....	.....	.....	.....	.....	.....
2	40	80	.....	.....	250	5,855	.....	.....	3,900	357 00	.....	.....	.....	.....	.....	.....
1	15	12	.....	.....	18	352	19	55	5,100	130 60	.....	.....	5	70	.....	.....
5	2,000	1,390	.....	.....	.....	.....	4	20	3,900	130 00	122	391 25	2	1,210	5	402
.....	.....	.....	19	1,375	3	90	.....	.....	.....	.....	.....	.....	5	1,120	5	740
13	2,100	1,482 80	19	1,375	346	8,457	23	75	13,300	1,217 60	122	391 25	12	2,400	8	1,142

during the year 1917, in the Public Waters of Inland Waters.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	\$ c.
.....	3,855	3,670	100	28,105	725	69,124	.....	.....	7,370 46
2,530	14,535	13,927	6,800	64,673	900	91,572	.....	700	13,851 99
6,900	5,575	4,000	.....	5,550	1,450	77,290	116	.....	6,405 00
.....	.....	5,682	.....	.....	238,107	34,107	.....	.....	9,314 09
.....	50	1,247	1,180	2,500	.....	60,115	.....	.....	17,673 22
9,430	24,015	28,526	8,089	100,833	241,182	332,208	116	700	54,614 76
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,414 50	1,440 90	1,426 30	484 80	8,066 64	4,823 64	16,610 40	116 00	420 00	54,614 76

ONTARIO

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats, industry during

Number	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton-nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
			\$		\$		\$ c.			\$ c.			\$ c.
1	Kenora & Rainy River Dists.	6	109	10,500	19	88	32,380	158	60	2,305 00	60	155,233	21,862 00
2	Lake Superior.....	19	420	67,900	121	26	11,900	61	75	5,035 00	117	881,650	77,520 00
3	Lake Huron (North Channel)....	19	407	80,400	95	35	17,800	78	66	3,745 00	94	997,430	66,337 00
4	Georgian Bay.....	16	357	67 600	75	60	24,605	113	50	3,425 00	71	899,374	62,694 00
5	Lake Huron (Proper).....	12	289	44,100	61	57	19,550	120	47	2,993 00	79	719,040	51,965 00
6	Lake St. Clair, etc.....	.....	.....	.....	.....	60	18,050	115	113	5,006 00	172	.....	.....
7	Lake Erie.....	46	1,401	312,600	256	176	99,625	457	202	8,356 50	266	1,370,200	251,916 00
8	Lake Ontario.....	2	49	18,000	9	168	55,780	323	342	12,615 00	551	902,810	80,882 00
9	Inland Waters.....	.....	.....	.....	.....	32	14,550	58	153	5,444 00	177	25,800	2,825 00
	Totals.....	120	3,032	601,100	635	702	294,240	1,483	1108	48,924 50	1,587	5,951,537	616,001 00

Recapitulation of the kinds, quantities and values

Number	District.	Herring, salted.		Herring, fresh.		Whitefish, salted.		Whitefish, fresh.		Trout, salted.		Trout, fresh.		Pike.	Pickarel or Dore.
		brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Kenora and Rainy River Districts.....		167,920		23	680,717		24	111,804		787,359		961,653		
2	Lake Superior.....	2,655	2,443,201		26	446,457		743	1,660,957		17,806		70,070		
3	Lake Huron (North Channel)....	18	38,564		211	594,035		66	1,475,754		112,488		260,321		
4	Georgian Bay.....	38	90,360		466	415,185		624	1,230,878		81,687		54,598		
5	Lake Huron (Proper).....	466	376,815		82	60,135		334	783,078		1,737		185,923		
6	Lake St. Clair, etc.....					30,450					58,093		64,389		
7	Lake Erie.....		14,157,839			1,239,521			2,344		141,682		227,459		
8	Lake Ontario.....	41	1,930,186		210	1,140,445		24	463,924		280,377		53,660		
9	Inland Waters.....	1	9,506		1	37,176			16,245		76,211		78,773		
	Totals.....	3,219	19,214,391		1,019	4,644,121		1,793	5,744,984		1,557,370		1,956,846		
	Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		32,190 00	960,719 55	10,190 00	464,412 10	17,935 00	574,498 40	124,589 60	195,684 60						

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the fishing the year 1917.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$ c.		\$		\$ c.		\$ c.		\$ c.		\$		\$ c.		\$
...			61	17,050	34	2,930 00	...						50	14,080 00	39	6,690
...			57	18,250			...						25	10,135 00	12	3,660
...			132	61,900			...						33	7,885 00	23	9,150
1	50	50 00	8	8,050	25	345 00	...		17,400	1,495 00			21	4,650 00	21	3,300
5	335	420 00	67	23,350			7	68					20	4,425 00	6	335
70	12,949	6,593 00	10	3,450	106	8,060 00	2	10	1,900	127 00			36	10,500 00	17	5,500
67	22,604	12,147 25	875	341,850	25	481 50	21	167	8,420	171 75			133	117,750 00	62	23,940
36	3,676	1,911 00	...		661	14,171 50	9	43	5,850	210 00	125	375 00	*1454	8,404 50	14	1,292
13	2,100	1,482 80	19	1,375	346	8,457 00	23	75	13,300	1,217 60	122	391 25	12	2,400 00	8	1,142
192	41,714	22,609 05	1099	474,275	1197	34 445 00	62	363	46,870	3,321 35	247	766 25	1784	180,229 50	202	55,009

*1,400 of these are spearing houses. value \$1,700.50

of fish caught during the year 1917.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
20,460	...	679	174,445	8,000	173	592,638	790	677	...	292,098 33
5,082	...	...	...	75	700	332,774	22	100	...	393,075 93
12,103	...	34,731	111,737	122	68	361,909	53	...	...	274,804 03
3,239	...	2,915	176,828	6,940	11,868	32,810	410	...	...	206,483 40
13,406	...	119,417	530,594	556	4,558	123,656	923	137	...	178,598 34
11,350	...	131,765	...	63,462	102,950	685,691	280	...	...	64,567 00
47,163	18,936	995,413	12,225	36,707	666,773	668,986	3,149	24	565,476	1,034,305 99
3,261	126,034	213,623	...	225,348	331,249	717,714	63	...	...	367,876 22
9,430	24,015	28,526	8,080	100,833	241,182	332,208	116	700	...	54,614 76
132,494	168,985	1,517,069	1,013,909	442,043	1,419,521	3,848,386	5,806	1,628	565,476	2,866,424 00
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
19,874 10	10,139 10	75,853 45	60,834 54	35,363 44	28,390 42	192,419 30	5,806 00	976 80	56,547 60	2,866,424 00

Comparative Statement of yield for 1916-17, according to Districts.

	1916.	1917.	Increase.	Decrease.
Kenora and Rainy River Districts:				
Herring bbls.				
Herring lbs.		167,920	167,920	
Whitefish bbls.	3	23	20	
Whitefish lbs.	685,140	680,717		4,423
Trout bbls.	4	21 $\frac{1}{2}$		1 $\frac{1}{2}$
Trout lbs.	74,616	111,804	37,188	
Pike "	508,488	788,359	278,871	
Pickereel (Dore) "	641,386	961,653	320,267	
Sturgeon "	8,616	20,460	11,844	
Eels "				
Perch "	7,757	679		7,078
Tullibee "	138,566	174,445	35,879	
Catfish "		8,000	8,000	
Carp "	12,000	173		11,827
Mixed and Coarse Fish "	365,823	592,638	226,815	
Caviare "	940	790		150
Sturgeon Bladders No.		677	677	
Lake Superior:				
Herring bbls.	805 $\frac{1}{2}$	2,655	1,849 $\frac{1}{2}$	
Herring lbs.	3,127,015	2,443,201		683,814
Whitefish bbls.	22	26	4	
Whitefish lbs.	464,941	446,457		18,484
Trout bbls.	136 $\frac{1}{2}$	743	606 $\frac{1}{2}$	
Trout lbs.	1,501,719	1,660,957	159,238	
Pike "	24,771	17,806		6,965
Pickereel (Dore) "	89,733	70,070		19,663
Sturgeon "	3,307	5,082	1,775	
Eels "				
Perch "	255			255
Tullibee "	2,408			2,408
Catfish "	40	75	35	
Carp "		700	700	
Mixed and Coarse Fish "	249,772	332,774	83,002	
Caviare "	40	22		18
Sturgeon Bladders No.		100	100	
Lake Huron, North Channel:				
Herring bbls.	36	18		18
Herring lbs.	27,744	38,564	10,820	
Whitefish bbls.	1,058	211		847
Whitefish lbs.	751,081	594,035		157,046
Trout bbls.	1,991	66		1,925
Trout lbs.	1,651,563	1,475,754		175,809
Pike "	83,697	112,488	28,791	
Pickereel (Dore) "	273,224	260,321		12,903
Sturgeon "	13,588	12,103		1,485
Eels "				
Perch "	18,099	24,731	6,632	
Tullibee "	66,910	111,737	44,827	
Catfish "	527	122		405
Carp "	10,243	68		10,175
Mixed and Coarse Fish "	336,345	361,909	25,564	
Caviare "	239	53		186
Sturgeon Bladders No.				
Georgian Bay:				
Herring bbls.	292	38		254
Herring lbs.	27,744	90,360	62,616	
Whitefish bbls.	1,058	466		592
Whitefish lbs.	751,081	415,185		335,896
Trout bbls.	1,991	624		1,367

Comparative Statement of yield for 1916-17, according to Districts—Continued.

	1916.	1917.	Increase.	Decrease
Georgian Bay—Continued:				
Troutlbs.	1,651,563	1,230,878		420,685
Pike"	83,697	81,687		2,010
Pickereel (Dore)"	273,224	54,598		218,626
Sturgeon"	13,588	3,239		10,349
Eels"				
Perch"	18,099	2,915		15,184
Tullibee"	66,910	176,828	109,918	
Catfish"	527	6,940	6,413	
Carp"	10,243	11,868	1,625	
Mixed and Coarse Fish"	336,345	32,810		303,535
Caviare"	239	410	171	
Lake Huron (proper):				
Herringbbls.	277	466	189	
Herringlbs.	204,789	376,815	172,026	
Whitefishbbls.	11	82	71	
Whitefishlbs.	74,960	60,135		14,825
Troutbbls.	1,029	334		695
Troutlbs.	871,484	783,078		88,406
Pike"	1,088	1,737	649	
Pickereel (Dore)"	215,292	185,923		29,369
Sturgeon"	11,284	18,406	7,122	
Eels"	3			3
Perch"	146,142	119,417		26,725
Tullibee"	432,480	530,594	98,114	
Catfish"	106	556	450	
Carp"	8,509	4,558		3,951
Mixed and Coarse Fish"	87,558	123,656	36,098	
Caviare"	777	923	146	
Sturgeon BladdersNo.	6	127	121	
Lake St. Clair and Detroit River:				
Herringbbls.				
Herringlbs.	300			300
Whitefishbbls.				
Whitefishlbs.	61,200	30,450		30,750
Troutbbls.				
Troutlbs.				
Pike"	40,879	58,023	17,144	
Pickereel (Dore)"	49,992	64,389	14,397	
Sturgeon"	18,900	14,350		4,550
Eels"				
Perch"	116,165	131,765	15,600	
Tullibee"				
Catfish"	56,951	63,462	6,511	
Carp"	606,773	102,950		503,823
Mixed and Coarse Fish"	275,911	685,691	409,780	
Caviare"	490	280		210
Lake Erie:				
Herringbbls.				
Herringlbs.	5,210,531	14,157,839	8,947,308	
Whitefishbbls.				
Whitefishlbs.	1,086,085	1,239,521	153,436	
Troutbbls.				
Troutlbs.	3,714	2,344		1,370
Pike"	437,007	141,682		295,325
Pickereel (Dore)"	599,152	227,459		371,693
Sturgeon"	67,642	47,163		20,479
Eels"		18,936	18,936	
Perch"	769,156	995,413	226,257	

Comparative Statement of yield for 1916-17, according to Districts—Continued.

	1916.	1917.	Increase.	Decrease.
Lake Erie.—Continued:				
Tullibee .....lbs....	23,835	12,225	.....	11,610
Catfish "	22,880	36,707	13,827	.....
Carp "	782,296	666,773	.....	115,523
Mixed and Coarse Fish "	1,081,217	668,986	.....	412,231
Caviare "	3,418½	3,149	.....	268½
Sturgeon Bladders No.....	234	24	.....	210
Pickarel (Blue) .....lbs....	2,538,926	565,476	.....	1,973,450
Lake Ontario:				
Herring .....bbls....	55½	41	.....	13½
Herring .....lbs....	1,610,490	1,930,186	319,696	.....
Whitefish .....bbls....	610	210	.....	400
Whitefish .....lbs....	1,130,614	1,140,445	9,831	.....
Trout .....bbls....	962	24	.....	938
Trout .....lbs....	347,767	463,924	116,157	.....
Pike "	283,430	280,377	.....	3,053
Pickarel (Dore) "	40,003	53,660	13,657	.....
Sturgeon "	3,082	2,261	.....	821
Eels "	142,825	126,034	.....	16,791
Perch "	166,838	213,623	46,785	.....
Tullibee "	3,683	.....	.....	3,683
Catfish "	301,993	225,348	.....	76,645
Carp "	267,952	391,249	123,297	.....
Mixed and Coarse Fish "	628,779	717,714	88,935	.....
Caviare "	538	63	.....	475
Inland Waters:				
Herring .....bbls....	1	1	.....	.....
Herring .....lbs....	4,974	9,506	4,532	.....
Whitefish .....bbls....	1	1	.....	.....
Whitefish .....lbs....	40,552	37,176	.....	3,376
Trout .....bbls....	.....	.....	.....	.....
Trout .....lbs....	20,630	16,245	.....	4,385
Pike "	63,760	76,211	12,451	.....
Pickarel (Dore) "	43,577	78,773	35,196	.....
Sturgeon "	16,707	9,430	.....	7,277
Eels "	23,322	24,015	693	.....
Perch "	28,631	28,526	.....	105
Tullibee "	2,108	8,080	5,972	.....
Catfish "	154,473	100,833	.....	53,640
Carp "	153,365	241,182	87,817	.....
Mixed and Coarse Fish "	358,934	332,208	.....	26,726
Caviare "	135	116	.....	19
Sturgeon Bladders No.....	.....	700	700	.....

Statement of the yield and value of the Fisheries of the Province for the year 1917.

Kinds of Fish.	Quantity.	Price.	Value.
		\$ c.	\$ c.
Herringbbls...	3,219	10 00	32,190 00
Herringlbs...	19,214,391	05	960,719 55
Whitefishbbls...	1,019	10 00	10,190 00
Whitefishlbs...	4,644,121	10	464,412 10
Troutbbls...	1,793½	10 00	17,935 00
Troutlbs...	5,744,984	10	574,498 40
Pike“	1,557,370	08	124,589 60
Pickrel (Dore)“	1,956,846	10	195,684 60
Sturgeon“	132,494	15	19,874 10
Eels“	168,985	06	10,139 10
Perch“	1,517,069	05	75,853 45
Tullibee“	1,013,909	06	60,834 54
Catfish“	442,043	08	35,363 44
Carp“	1,419,521	02	28,390 42
Mixed and Coarse Fish“	3,848,386	05	192,419 30
Caviare“	5,806	1 03	5,806 00
Sturgeon BladdersNo....	1,628	60	976 80
Pickrel (blue)lbs....	565,476	10	56,547 60
Total			2,866,424 00

Comparative Statement of the yield of the Fisheries of the Province.

	1916	1917	Increase.	Decrease.
Herringbbls...	1,477	3,219	1,742	.....
Herringlbs...	10,244,128	19,214,391	8,970,263	.....
Whitefishbbls...	4,541	1,019	.....	3,522
Whitefishlbs...	4,708,801	4,644,121	.....	64,680
Troutbbls...	7,114½	1,793½	.....	5,321
Troutlbs...	5,677,436	5,744,984	67,548	.....
Pike“	1,483,631	1,557,370	73,739	.....
Pickrel (Dore)“	2,002,937	1,956,846	.....	46,091
Sturgeon“	147,526	132,494	.....	15,032
Eels“	166,150	168,985	2,835	.....
Perch“	1,258,516	1,517,069	258,553	.....
Tullibee“	819,724	1,013,909	194,185	.....
Catfish“	542,710	442,043	.....	100,667
Carp“	1,857,823	1,419,521	.....	438,302
Mixed and Coarse Fish“	3,436,593	3,848,386	411,793	.....
Caviare“	7,207½	5,806	.....	1,400½
Sturgeon BladdersNo....	240	1,628	1,388	.....
Pickrel (Blue)lbs....	2,538,926	565,476	.....	1,973,450
Total Barrels	13,132½	6,031½	.....	.....
Total Pounds	34,892,108½	42,231,401	.....	.....
Total Decrease of Barrels... 1917	.....	.....	.....	7,101
Total Increase of Pounds... 1917	.....	.....	7,339,292½	.....

STATEMENT

of the number and value of the Tugs, Gasoline, Sail or Row Boats, Nets, Spears, etc., used in the Fishing Industry of the Province of Ontario, during the year 1917.

	Number.	Value.
		\$ c.
Tugs (3,032 tons)	120	601,100 00
Gasoline Launches	702	294,240 00
Sail or Row Boats	1,108	48,924 50
Gill Nets	5,951,537 yards.	616,001 00
Seines (41,714 yds.)	192	22,609 05
Pound Nets	1,029	474,275 00
Hoop Nets	1,197	34,445 00
Dip or Roll Nets	62	363 00
Night Lines	46,870	3,221 35
Spears	247	766 25
Freezers and Ice Houses	1,784	180,229 50
Piers and Wharves	202	55,009 00
Total		2,331,183 65

Number of men employed on Tugs	635
Number of men employed on Gasoline Launches	1,483
Number of men employed on Sail or Row Boats	1,587
Total	3,705

OUTPUT OF FISH FROM THE NORMANDALE HATCHERY, IN DETAIL, 1917.

White Fish.

Port Stanley	3,000,00
Port Dover	2,500,00
Nanticoke Shoal	1,000,00
Pottahawk Point	2,000,00
Ryersey Point	2,000,00
Long Point	2,000,00
Turkey Point Shoal	2,500,00
Normandale	500,00
Total	15,500,00

Herring Fry.

Port Dover	4,000,00
Bluff Bar	4,000,00
Deep Hole Point	2,000,00
Peacock Point	2,000,00
Woolley Point	2,500,00
Nanticoke Shoal	3,000,00
Turkey Point	4,000,00
Fishers Glen	2,500,00
Clear Creek	2,500,00
Pottahawk Shoal	4,000,00
Long Point Shoal	4,000,00
Snow Island	3,500,00
Total	38,000,00

Pickarel Fry.

Normandale	2,500,00
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DANIEL AUSTIN, Superintendent.

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per. Sallie Jr

Government
Publication

June 18, 1931

Thirteenth Annual Report

OF THE

GAME AND FISHERIES DEPARTMENT

1919

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

Printed and Published by A. T. WILGRESS, Printer to the King's Most Excellent Majesty

1920



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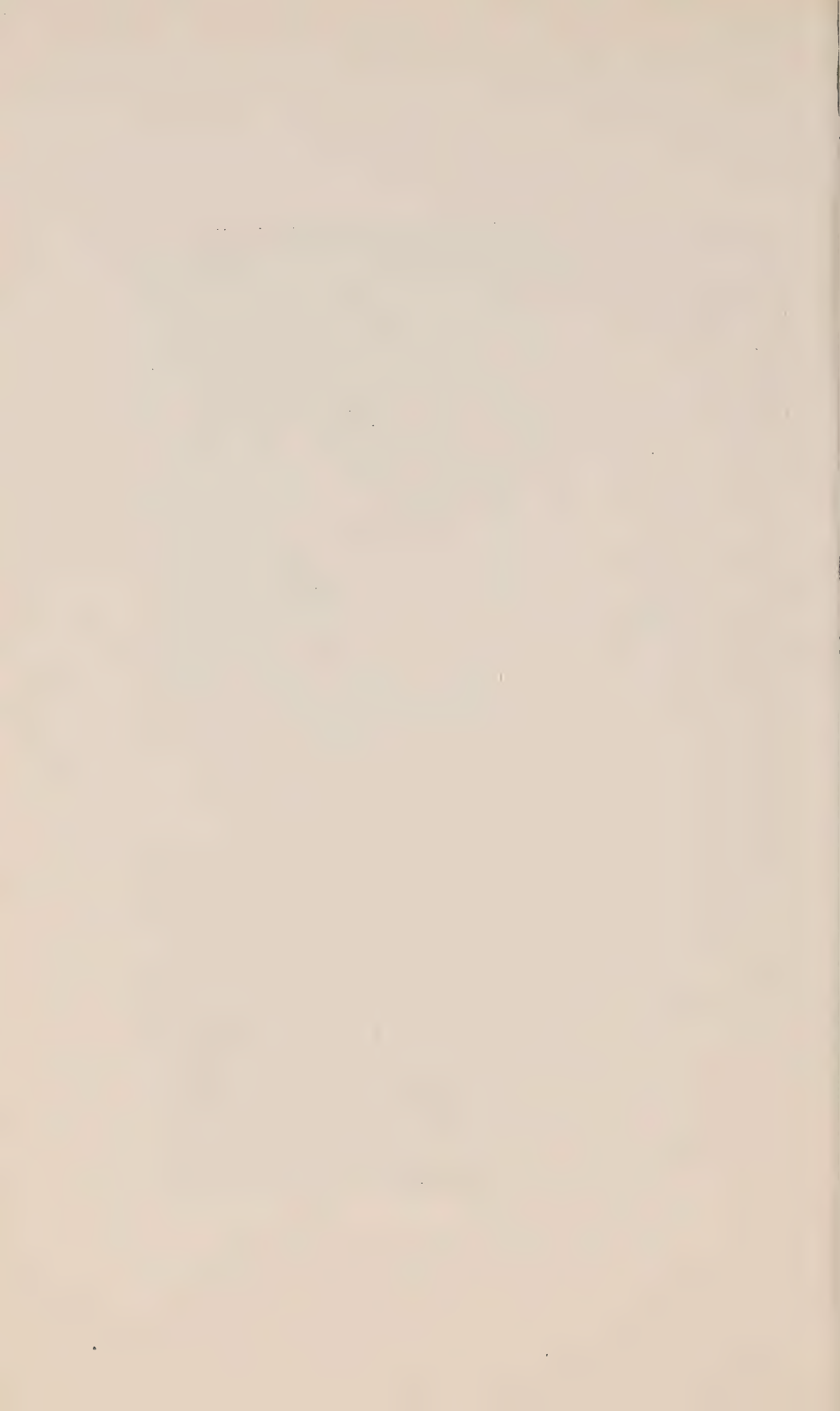
1920

Printed by
THE RYERSON PRESS





Quail—Bob-white.



to His Honour LIONEL HERBERT CLARKE,

Lieutenant-Governor of the Province of Ontario.

SAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Thirteenth Annual Report of the Department of Game and Fisheries of this Province.

I have the honour to be,

Your Honour's most obedient servant,

F. C. BIGGS,

Minister of Public Works and Highways.

Toronto, 2nd February, 1920.



THIRTEENTH ANNUAL REPORT

OF THE

Department of Game and Fisheries of Ontario

To the Honourable F. C. BIGGS,

Minister of Public Works and Highways.

SIR,—I have the honour to place before you the Thirteenth Annual Report of the work of the Department of Game and Fisheries for the fiscal year ending October 31st, 1919. It is satisfactory that there continues to be a steady and very marked increase in the revenues without a corresponding increase in the expenditures for the year. The surplus over and above expenditure amounts to \$160,-949.42. The total revenues reached \$346,197.14, and the expenditures amount to \$185,247.72. These figures are exclusive of the Sales Branch returns which show surplus of monies received over expenditures of \$24,426.42 aside from assets of Book Accounts and stock of fish on hand, or a total surplus for the year of \$185,375.84. A statement of the Sales Branch is shown elsewhere in this report.

Comparative Statement of Revenue and Expenditure—Department of Game and Fisheries, 1910-1919, as Published in the Public Accounts.

	Revenue.	Expenditure.	Surplus.	Relation of surplus to expenditure.
1910	\$126,866 61	\$104,203 87	\$22,662 74	21.74%
1911	130,267 39	114,517 37	15,750 02	13.75%
1912	133,354 49	123,197 31	10,157 18	8.24%
1913	138,364 31	127,594 24	10,770 07	8.44%
1914	154,836 73	134,629 16	20,207 57	15. %
1915	168,763 47	152,872 41	15,891 06	10.39%
1916	174,186 71	157,681 94	16,504 77	10.46%
1917	219,442 94	154,055 17	65,387 77	42.44%
1918	258,671 62	167,795 22	90,876 40	54.16%
1919	346,197 14	185,247 72	160,949 42	86.88%

SALES BRANCH.

1919	\$357,741 06	\$333,314 64	\$24,426 42	7. % Gain.
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Statement showing the revenues received from Game and also those received from Fish in the year 1910 as compared with the year 1919.

	1910	1919	Increase.
Revenue from Game	\$38,904 89	\$193,939 68	\$155,034 79
Revenue from Fish	87,961 72	152,257 46	64,295 74
	<u>\$126,866 61</u>	<u>\$346,197 14</u>	<u>\$219,330 53</u>

You will note that the total revenues for 1919 of \$346,197.14 are nearly three times as great as the revenues for 1910, and the increase is largely responsible to the revenues received in the Game Department being almost five times as great for the same period, while the revenues from the Fisheries for 1919 are less than twice the amount received in 1910.

STATISTICS.

The statistics have been carefully prepared and furnish much interesting and valuable information.

FISH.

Commercial licenses were issued in 1918 for 6,605,067 yards of gill nets, 36,402 yards seines, 1,069 pound nets, 1,332 hoop nets, 36 dip or roll nets, 269 spears as well as 58,500 hooks.

The occupation gave direct employment to 3,918 men with 125 tugs, 703 gasoline boats and 1,176 sail or row boats, with an estimated capital of \$2,694,104.31 invested in the industry. The aggregate catch amounts to 46,004,176 1/2 lbs. as compared with 42,836,179 lbs. in the previous year, an increase of 3,167,996 1/2 lbs.

The reports received from nearly every district show that angling for game fish in 1919 has been exceptionally good and no doubt the results are responsible to a large measure to the re-stocking programme carried on by this Department during the past few years.

GAME

Moose and Deer are reported to be plentiful in several districts and Caribou has appeared in sections where they have not been seen for some years. The number of non-resident licenses issued this year shows an increase of 172 over the previous years, the number of resident Deer licenses shows an increase of 3,341 and the number of resident Moose licences shows an increase of 61 over the previous year.

Partridge.—The benefit of the existing close season together with favourable weather conditions during the hatching period has been very beneficial to these game birds and there is reported to be a large increase in numbers in many parts of the province.

Ducks.—The season for ducks may be considered as normal and the number taken compares favourably with the previous year.

Quail.—Has not shown any increase in the province.

Pheasants.—Favourable reports have been received from parts of the province regarding the number of pheasants, particularly in the Niagara district. The Department has undertaken to assist in the propagation of these game birds by importing some new stock of English Ring-Neck pheasants and placing them at Rondeau Park, and a quantity of eggs were also imported during the spring months and the hatch therefrom has been very satisfactory. It is hoped that some satisfactory results will be obtained in the rearing of these birds in order that they may become more plentiful in those parts of the province suitable for their existence.

FUR.

The prices paid for all classes of pelts during the past year have been exceptionally high and have attracted many to trap, and there has been a great increase in the number of fur dealers. Therefore the revenue has increased not only from the sale of these licenses but from the royalties imposed on certain pelts.

Beaver appear to be quite plentiful and the number taken greatly exceeds any previous year.

Otter are not obtained in any great numbers.

Mink, Marten and Fisher show no increase and appear to be scarce.

Muskrats have been taken in large numbers, but the high prices paid for these pelts tend to tempt the unscrupulous trapper to take them during the close season provided for their protection.

Wolf.—Reports continue to reach the Department as to the destruction of deer and other game by these animals, and many are urging that the bounty be increased so that the trapper may have something substantial for the efforts put forth in his endeavour to capture this predatory animal.

GAME SANCTUARY.

I must once more strongly recommend and urge that one or more suitable areas of considerable extent be set aside by the Government for the establishment of a Game Sanctuary or Sanctuaries which, in my opinion, should be located somewhere in the north or western part of the province where arrangements could be readily made for such purposes and which are suitable from natural conditions. Great inroads have been made upon fur-bearing animals, as well as the game and birds of the province during the past few years and more attention must be given by the Department to the existing conditions.

HATCHERIES.

The progressive policy in regard to the propagation of fish by this Department during the past three years has been maintained and a modern and efficient hatchery is now under construction at Fort Frances. The building will have an artistic appearance in keeping with its location among other public buildings in that town, and will have a capacity of 100,000,000 pickerel and a further capacity for speckled trout, or lake trout can be installed later if conditions warrant same. A distribution of fry fingerling and parent fish was made this year, as shown elsewhere in this report, and while weather conditions were not favourable to the taking of spawn this fall yet it is hoped the distribution for 1920 will be larger than any other year of the Province's undertaking. The rapid growth in the hatchery policy of the Department made it imperative that an efficient and qualified Fish Culturist be obtained for its success, and I have secured, through the courtesy of the Federal Government, Mr. A. W. McLeod, formerly of the Thurlow Federal Hatchery, for this work.

SALES BRANCH.

This branch has been in charge of the Superintendent of the Department since March 1st, and the following letter and statement will give you the details of the Sales Branch operations for the past fiscal year.

D McDONALD, Esq.,

Deputy Minister Game and Fisheries,

Toronto, Ont.

DEAR SIR,—I have pleasure in handing you herewith a financial report of the Sales Branch for the fiscal year ending October 31st, 1919, by which you will note that there has been a surplus of cash received over expenditures amounting to \$24,335.77, and by adding thereto the outstanding ledger accounts it shows a credit balance of \$70,116.48.

The total fish purchased for the year amounts to 3,155,902 lbs. as against 2,728,159 lbs. of the previous year, and the municipalities supplied during the past year being 106 with 218 dealers against 152 municipalities and 303 dealers for the previous year. The shortage of ice in many municipalities this year together with the restrictions removed on the consumption of meat, I consider responsible for the decrease in the number of municipalities and dealers supplied. Yet, taking this into consideration, you will notice that there was an increase in the distribution of 427,743 lbs.

All of which is respectfully submitted.

Yours truly,

GEO. H. RAPSEY,

Superintendent.

DEPARTMENT OF GAME AND FISHERIES.

Sales Branch.

Income and Expenditure for year ending October 31, 1919.

INCOME.

Cash, paid treasurer	\$357,741 06	
Outstanding Accounts, Sales Ledger, Toronto	9,688 19	
Outstanding Accounts, Sales Ledger (Ontario, other than Toronto)	19,195 57	
Outstanding Accounts, fish in freezers	16,896 95	
		<hr/> \$403,521 77

EXPENDITURE.

Paid fishermen	\$194,364 02	
Express, freight and cartage	58,160 30	
Boxes and cases	11,671 25	
London and St. Thomas Warehouse, charges	6,448 37	
Toronto Warehouse, charges	15,947 22	
Wages, packing and shipping, Nipigon	9,255 63	
Salaries, Nipigon	2,100 00	
Salaries, Toronto Warehouse	4,219 15	
Salaries, Toronto Office	2,774 89	
Commission, Purchasing	1,768 40	
Travelling expenses	513 53	
Sundry expense, Nipigon	984 67	
Sundry expense, Toronto	41 75	
Postage	3,112 71	
Postage and stationery	611 44	
Office equipment, Toronto Office	16 50	
Buildings, docks, warehouse, etc., Nipigon	7,623 41	
Expense, docks, warehouse, etc., Nipigon	7,845 76	
Equipment and supplies, Nipigon	1,504 33	
Horses, motor and motor boat expense	1,540 08	
Telephone and telegraph	236 35	
Advertising	1,594 60	
Miscellaneous expense	980 28	
		<hr/> \$333,314 64
Balance, profit and loss	70,207 13	
		<hr/> \$403,521 77

ACKNOWLEDGMENTS.

I cannot close my report without publicly expressing my appreciation of the co-operation received from many outside sources and I have reference particularly to the Deputy Minister of Naval Service, Ottawa, and his officials, the Transportation Companies, as well as to other Departments of the Provincial Government. During the year death claimed one of the Department's most valued and efficient members of the staff in the person of Mr. Jas. Pegg, who had been in the employ of this Government for approximately twenty-four years, and in this particular Department since its inception. His work was always conscientiously performed and the Department has suffered a decided loss by his removal. In reporting any success that has been attained by the Department during the past year I must also bear tribute to the co-operation and willingness with which every member of the staff attributed his or her efforts to bring about the best possible results.

All statistics mentioned as well as many others will be found in detail in statements published herein.

All of which is respectfully submitted.

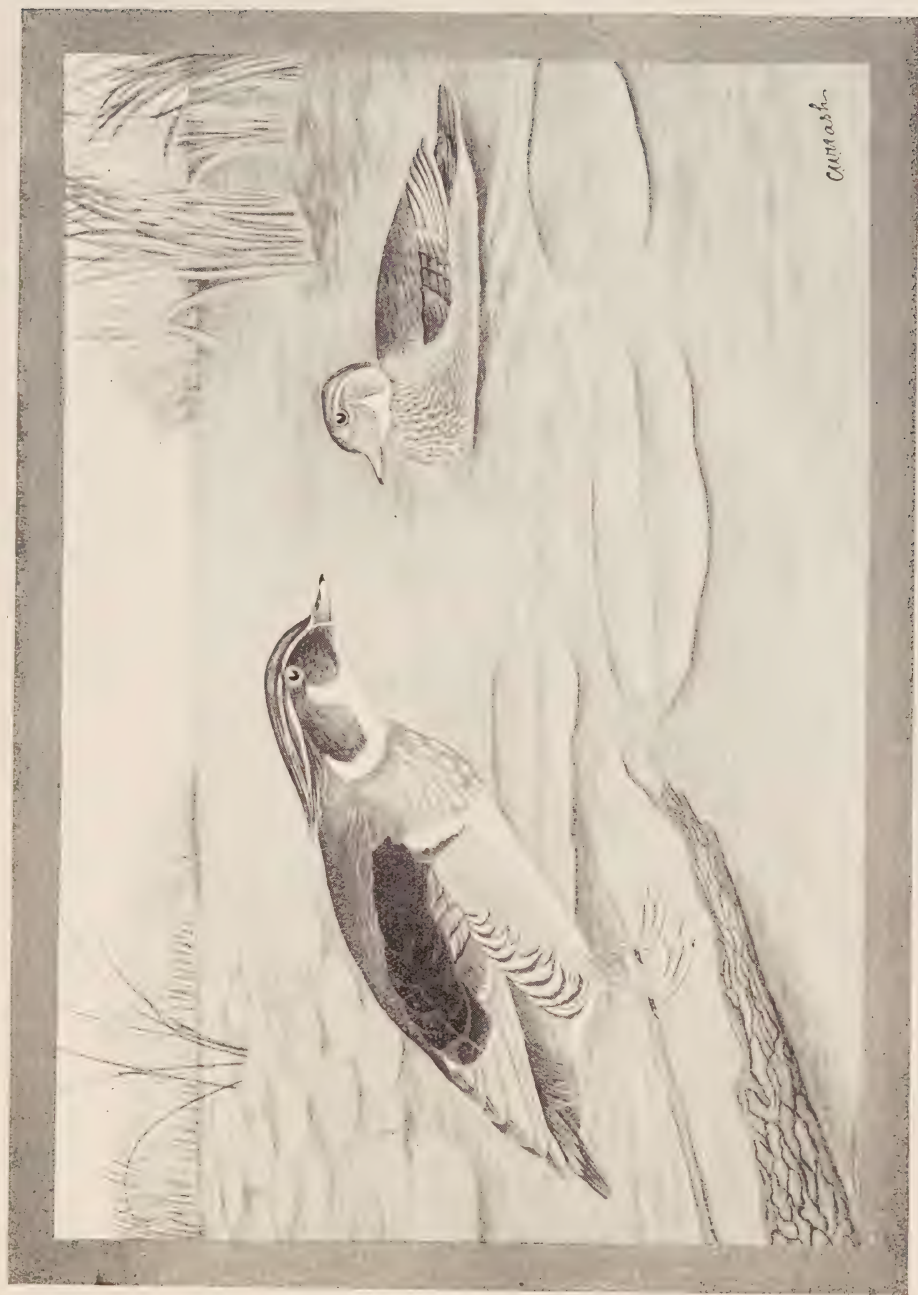
I am,

Your obedient servant,

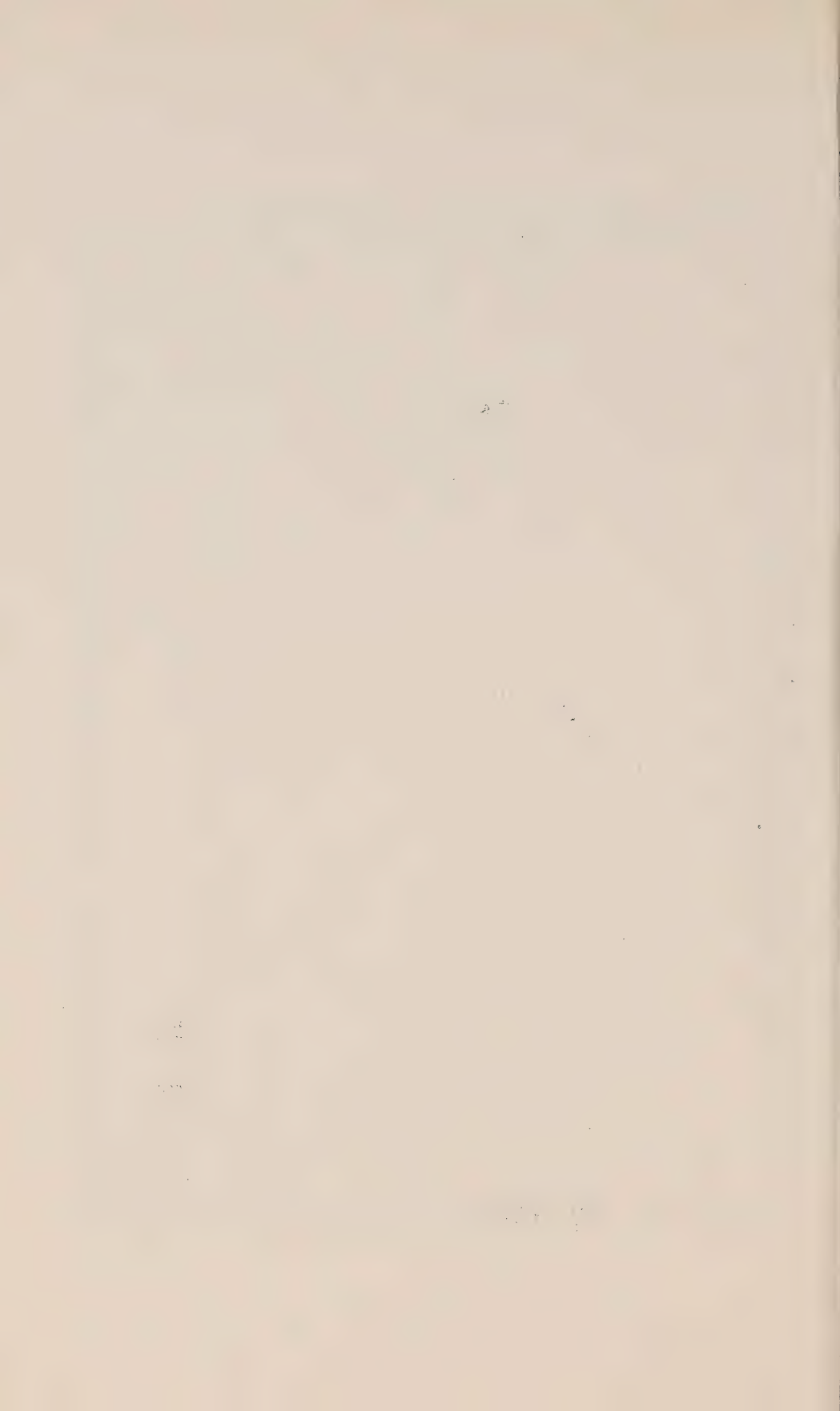
D. McDONALD,

Deputy Minister of Game and Fisheries.

Toronto, January 31st, 1920.



Wood Duck.



Statement of Revenue received from Game and Fisheries during the year ended
October 31st, 1919.

GAME.

Rondeau Park	\$1,975 92	
Royalty Coupons (Beaver and Otter)	48,874 83	
Royalty on Muskrat, etc.	7,679 16	
Trappers' Licenses	38,592 66	
Non-resident Hunting Licenses	7,693 00	
Resident Deer Licenses	39,141 35	
Resident Moose Licenses	11,266 00	
Fur Dealers' Licenses	17,673 96	
Tanning Licenses	50 00	
Game Dealers' Licenses	317 00	
Hotel and Restaurant Licenses	173 00	
Cold Storage Licenses	75 00	
Guides' Licenses	1,254 00	
Fines	12,160 40	
Sales (Fur, etc.)	7,013 40	
		<u>\$193,939 68</u>

FISHERIES.

Fishing Licenses	\$124,361 03	
Angling Permits	25,469 78	
Fines	1,808 85	
Sales (Fish, Twine, etc.)	617 80	
		<u>\$152,257 46</u>

SALES BRANCH.

Sale of Fish, etc.	\$357,741 06	
		<u>\$357,741 06</u>
Total		<u>\$703,938 20</u>

WATERS STOCKED.

WITH QUANTITIES AND KINDS OF FISH PLANTED IN EACH IN 1919.

Black Bass Fingerlings Distributed from Ponds at Mount Pleasant.

Waters Stocked.	County.	Quantities.
Oakland Ponds	Brant	15,000
Cedar Creek	Oxford	15,000
Victoria Lake	Perth	15,000
Pond Mills	Middlesex	25,000
Cache Lake	Algonquin Park	20,000
Lake Nipissing	Nipissing	20,000
Wood and Prospect Lakes	Muskoka	6,000
Sydenham River	Lambton	30,000
Waters vicinity of Waterloo	Waterloo	25,000
Toronto Exhibition	Toronto	100
Puslinch Lake	Wellington	10,000
Saugeen River	Grey	5,000
Clear Lake	Renfrew	2,000
Crow Lake	Peterboro	3,000
Mississippi Lake	Carlton	1,500
Trout Lake	Frontenac	2,000
Hurd's Lake	Renfrew	2,500
		<hr/> 197,100

Black Bass Fingerlings Distributed from Normandale.

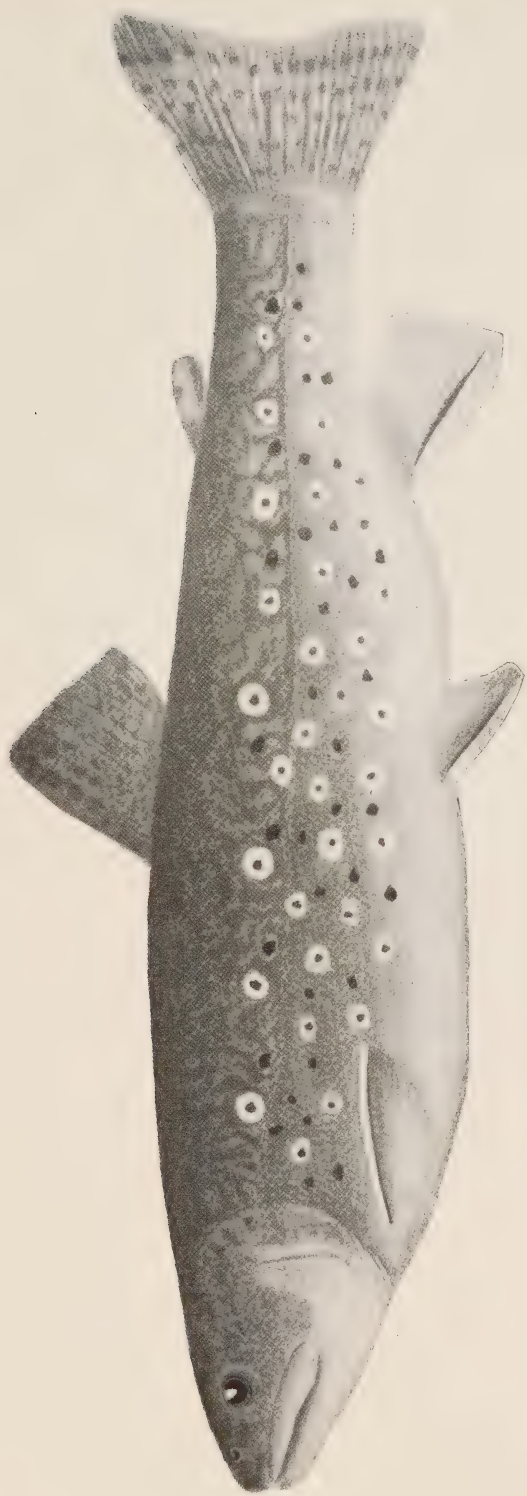
Waters Stocked.	County.	Quantities.
Sand Lake	Leeds	1,150
Mississippi Lake	Carlton	1,450
Pond near St. Thomas	Elgin	800
		<hr/> 3,400

Parent Bass Distributed from Mount Pleasant Ponds.

Waters Stocked.	County.	Quantities.
Cache Lake	Algonquin Park	200
Waterworks Pond	Toronto	24
Toronto Exhibition	Toronto	21
Belmont Lake	Peterboro	50
Stoco Lake	Peterboro	50
Norway Lake	Renfrew	25
Stony and Clear Lakes	Peterboro	178
		<hr/> 548

Lake Trout Fry Distributed from Thurlow Hatchery.

Waters Stocked.	County.	Quantities.
Sharbot Lake	Frontenac	45,000
Charleston Lake	Leeds	50,000
Sararas Lake	Frontenac	20,000
Rideau Lake	Leeds and Lanark	75,000
Eagle Lake	Frontenac	60,000
Cache Lake	Algonquin Park	250,000
		<hr/> 500,000



Brook Trout.

Lake Trout Fry Distributed from Mount Pleasant Hatchery.

Waters Stocked.	County.	Quantities.
Draper's Lake	Frontenac	15,000
Charleston Lake	Leeds	35,000
Lake Muskoka	Muskoka	20,000
Lake Joseph	do	20,000
Lake Rosseau	do	25,000
McKays Lake	do	20,000
Fairy Lake	do	30,000
Mary Lake	do	30,000
Peninsular Lake	do	30,000
Lake of Bays	do	65,000
Oxtongue Lake	do	20,000
Lake Simcoe	At Atherley Jt., North Shore ..	210,000
Toronto Exhibition	Toronto	100
		520,100

Brook Trout Fingerlings Distributed from Mount Pleasant Hatchery.

Waters Stocked.	County.	Quantities.
Waters in vicinity of Simcoe	Norfolk	2,000
Spring Creek at Chatsworth	Grey	2,000
Toronto Exhibition	Toronto	100
Two Lakes, McKay Township	Renfrew	6,000
Creek at Normandale	Norfolk	500
		10,600

Pickereel Fry Distributed from Port Carling Hatchery.

Waters Stocked.	County.	Quantities.
Lake Joseph	Muskoka District	750,000
Lake Rosseau	do	750,000
Lake Muskoka	do	750,000
Mud Lake near Utterson	do	150,000
Silver Lake near Port Carling	do	150,000
		2,550,000

Fry Distributed from Port Arthur Hatchery, in the Waters of Rainy River and Thunder Bay District.

Whitefish Fry	4,500,000
Lake Trout Fry	30,000
Speckled Trout Fry	10,900
	4,540,000

Fry Distributed from Normandale Hatchery.

Lake Erie, Whitefish	3,240,000
Herring	10,800,000
	14,040,000

SUMMARY OF DISTRIBUTION.

Black Bass Fingerlings	200,500
Parent Bass	548
Lake Trout Fry	1,050,100
Brook Trout Fingerlings	10,600
Speckled Trout Fry	10,000
Pickereel Fry	2,550,000
Whitefish Fry	7,740,000
Herring Fry	10,800,000
	22,361,748
Fingerlings	211,100
Fry	23,150,100
Parent Bass	548
	22,361,748

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1918, in the Public

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Kenora and Rainy River.</i>			\$			\$			\$			\$
1	Lake of the Woods.....	2	32	4,500	6	39	14,415	66	30	1,130	22	52,230	10,122
2	Obabicon, Orang Outang, Shoal and Eagle Lakes					12	4,700	22	3	80	4	19,000	3,150
3	Deer, Dryberry, Basket and Long Lakes					3	600	6	1	30	2	9,200	1,330
4	Indian, Lawrence, Sturgeon and Stormy Lakes.....					8	1,825	10	2	55	3	13,200	2,240
5	Whitefish and Peegan Lakes					1	300	2	1	25	1	4,000	460
6	Pelican, Big Sea, Lac Suel and Daniel's Lakes					2	450	4	2	125	5	4,700	690
7	Clay, Swan, Minnitakie and Rock Lakes.....					2	605	3	2	100	2	11,500	820
8	Big Vermillion, Sandy, One Man's and Kawaegama Lakes..					3	800	7	2	104	3	8,000	1,250
9	Rainy Lake.....	1	4½	450	3	23	11,075	44	33	1,500	23	41,900	6,840
10	Namaken, Tuttle and Pipestone Lakes.....					1	1,000	2	5	200	2	5,000	350
11	Clearwater, Kaiarskon and Trout Lakes.....	1	1½	145	2				1	40	2	9,700	1,910
12	White Otter, and Six Mile Lakes.								1		1	2,400	450
	Totals	3	38	5,095	11	94	35,770	166	83	3,389	70	180,830	29,640

Return of the kinds, quantities and values of fish caught during the

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickeral or Dore.
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
	<i>Kenora and Rainy River.</i>								
1	Lake of the Woods				261,328	229,800	14,548	341,493	348,960
2	Obabicon, Orang Outang, Shoal and Eagle Lakes				155,972		2,600	37,037	93,610
3	Deer, Dryberry, Basket and Long Lakes				34,274		33,660	2,697	3,180
4	Indian, Lawrence, Sturgeon and Stormy Lakes.....			800	57,552		12,222	8,897	22,970
5	Whitefish and Peegan Lakes.....				8,657		3,724	3,095	1,230
6	Pelican, Big Sea, Lac Suel and Daniel's Lakes				12,077		300	4,565	3,820
7	Clay, Swan, Minnitakie and Rock Lakes.....				13,150		500	13,300	26,870
8	Big Vermillion, Sandy, One Man's and Kawaegama Lakes..			100	32,056		17,754	3,691	1,550
9	Rainy Lake.....			700	82,873		5,397	239,705	224,580
10	Namaken, Tuttle and Pipestone Lakes.....				11,467			14,581	25,420
11	Clearwater, Kaiarskon and Trout Lakes.....				8,050		3,000	3,900	1,140
12	White Otter and Six Mile Lakes.				250		200	400	
	Totals			1,600	677,706	229,800	94,205	673,761	753,370
	Values		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
				160 00	67,770 60	22,980 00	9,420 50	53,900 88	75,137 00

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the fishing Waters of Kenora and Rainy River District.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....			32	12,700	35	1,980	.....						20	7,425	25	5,115
.....					6	360	.....						7	1,700	4	1,025
.....													3	225	4	240
.....													9	1,125	3	250
.....													3	200	2	75
.....													6	840	3	220
.....			29	9,400									5	750	3	100
.....			7	3,000									28	5,785	17	2,235
.....													5	650	2	100
.....																
.....			68	25,100	41	2,340							86	18,700	63	9,360

year 1918, in the Public Waters of Kenora and Rainy River District.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.		\$ c.
12,460	.....	251	81,650	197,524	10,591	91,287	58	.....		140,200 28
.....			4,182	10,000	1,410	1,320	.....			29,526 98
.....			500				.....			7,387 66
.....			5,931			3,925	.....			10,618 97
.....			6,344			1,559	.....			2,067 29
.....			1,350			3,750	.....		7,075	2,961 50
.....			1,500			1,000	.....			5,256 50
4,525	.....		7,012			30	446	.....		6,985 25
3,841	.....	7,017	131,224			250,539	269	.....	5,740	72,703 59
3,465	.....		725			9,063	50	.....		5,954 38
.....						1,364	.....			1,600 00
.....						600	.....			107 00
24,291	.....	7,268	240,418	207,524	12,001	364,437	823	.....	12,815	285,169 40
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
3,643 65	.....	363 40	14,425 08	16,601 92	240 02	18,221 85	823 00	.....	1,281 50	285,169 40

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1918,

Number.	District	Fishing Material.											
		Tugs.				Gasoline Launches			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
Lake Superior.													
1	Thunder Bay	6	211	\$ 28,000	98	3	\$ 1,800	6	7	\$ 1,175	12	208,000	\$ 16,025
2	Rosspoint.....	6	72	11,100	20	2	600	3	5	550	7	120,325	12,150
3	Black Bay, Whitefish Lake and Port Coldwell.....	3	64	9,000	12	4	1,050	11	11	785	8	62,500	8,325
4	Shaganash, Wilson, Lamb Islands and Jackfish					3	650	2	4	750	6	23,450	2,000
5	Kashabowie, Sturgeon, North and Baril Lakes.....								5	350	9	7,000	1,000
6	Port Arthur, Point Magnet, Fort William, Nipigon Bay and Carpenter's Beach	3	63	8,700	36				3	575	4	132,600	8,240
7	Evelyn, Perley, Welcome Islands, Steel River and Terrace Bay ...	1	15	2,500	3				5	725	8	36,000	2,950
8	Pine, McKellar, Stake, McLean's Points and Woodbine Harbour...	1	25	4,000	4	1	150	2	5	535	6	41,125	4,525
9	Pine, Oiseau Bays, Thunder Cape and Pays Platte	1	13	1,900	2				6	640	8	28,500	2,550
10	Gratto, Bignell, Isacore Points, North and South Twin Lakes..					1	300	2	2	200	3	13,250	1,350
11	Lake Nipigon	3	101	18,700	29	8	6,400	25	3	75	.....	80,000	5,685
12	Michipicoten	3	63	13,000	20	2	450	4	3	150	3	89,800	14,775
13	Mamais	1	48	5,000	4	2	2,100	7	1	100	1	85,000	10,100
14	Goulais Bay					3	1,650	5	2	100	2	34,000	2,280
15	Gros Cap					5	1,300	10	5	400	7	50,000	3,210
16	Batchawana.....					1	800	2	4	200	6	14,600	1,300
17	Gargantau, Richardson's Harbour, East and West Agawa River...	3	86	14,500	23	1	800	2	1	50	2	134,500	12,300
18	Locklash Lake and Oba Lake ..								2	100	2	3,000	250
Totals		30	761	115,500	251	36	18,050	81	74	7,460	94	1163,650	109,015

Return of the kinds, quantities and values of fish caught

Number.	District	Herring, salted.	Herring, fresh.	Whitefish, salted	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickeral, or Dore.
Lake Superior.									
1	Thunder Bay	45,000	1,868,499	10,000	3,605	40,100	18,717	.....	110
2	Rosspoint	64,450	461,051	.....	9,238	.....	191,360	129	1,253
3	Black Bay, Whitefish Lake and Port Coldwell.....	2,850	361,388	2,200	21,655	800	185,775	7,923	53,770
4	Shaganash, Wilson, Lamb Islands and Jackfish.....	.....	.....	.....	2,435	800	57,368	20	60
5	Kashabowie, Sturgeon North and Baril Lakes.....	.....	.....	200	48,760	300	29,377	5,097	22,284
6	Port Arthur, Point Magnet, Fort William, Nipigon Bay and Carpenter's Beach.....	37,000	727,497	.....	40,695	6,100	142,640	31	1,925
7	Evelyn, Perley, Welcome Islands, Steele River and Terrace Bay ..	40,900	125,755	.....	5,714	300	107,743	.....	55
8	Pine, McKellar's, Stake, McLean's Points and Woodbine Harbour ..	75,900	97,380	.....	7,614	.....	43,389	35	260
9	Pine, Oisean Bays, Thunder Cape and Pays Platte.....	17,000	21,585	.....	20,460	400	36,358	307	7,455
10	Gratto, Bignell, Isacore Points, North and South Twin Lakes ..	.....	.....	.....	20,387	.....	47,130	2,711	1,971
11	Lake Nipigon .....	.....	.....	.....	850,041	.....	401,109	365	16,394
12	Michipicoten.....	.....	2,000	.....	23,370	29,700	217,608	1,736	21
13	Mamais .....	.....	.....	.....	100,027	200	94,229	.....	.....
14	Goulais Bay.....	.....	2,454	.....	70,493	.....	718,381	.....	58
15	Gros Cap .....	.....	14,000	.....	19,850	400	86,765	.....	100
16	Batchawana .....	.....	.....	.....	153,900	.....	105,000	.....	100
17	Gargantau, Richardson's Harbour, East and West Agawa River ..	.....	.....	.....	113,121	1,700	176,108	.....	1,466
18	Locklash Lake and Oba Lake.....	.....	.....	.....	3,000	.....	.....	.....	.....
Totals		283,100	3,681,609	12,400	1,517,395	90,800	2,659,057	18,354	107,282
		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
Values.....		28,310 00	184,080 45	1,240 00	151,739 50	9,080 00	265,905 70	1,468 32	10,728 20

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Superior

Fishing Material.												Other fixtures used in fishing.				
Seines			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
			6	1,200									3	19,600	2	750
			9	3,150	1	20							6	3,000	5	950
			1	250												
			4	1,200									2	1,600	1	600
			2	500									1	100	1	50
			5	1,700											2	500
			6	3,500												
			10	3,500	10	400			2,000	60			4	4,000	1	500
			6	3,500									1	1,000	1	200
													3	2,300	2	1,700
													1	300	1	600
													1	100	1	300
			9	9,000												

during the year 1918, in the Public Waters of Lake Superior.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare	Sturgeon bladders.	Pickarel (blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.		\$ c.
			2,507		500	300				105,203 15
164						6,805				50,183 64
			15			46,120				47,738 84
						1,200				6,128 80
						405				10,520 11
			5,785							59,560 43
117			102		20	2,992				21,935 62
38			333			215				17,624 53
206			5		300					9,308 31
631			126							7,267 89
4,215						24,624				128,647 05
632						541,255				55,766 33
						40,715				21,481 35
										79,015 90
										11,411 50
										25,900 00
						90,110				33,745 00
	500									330 00
6,003	500		8,873		820	754,741				691,768 45
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
900 45	30 00		532 38		16 40	37,737 05				691,768 45

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1918, in the

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches			Sailor Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value
	<i>Lake Huron, North Channel.</i>			\$			\$			\$			\$
1	Thessalon					5	2,500	10	8	630	13	35,476	2,505
2	Spanish, St. Joseph's, Cedar Is- lands and Spragge					3	1,600	5	10	855	7	30,300	2,090
3	Little Laloche, Gordon, Burrows, Rock and William Lakes								6	280	8	5,200	825
4	Bruce Mines, Algoma Mills, Bus- well's Point and McKinnon.....	2	55	11,000	8	5	1,850	8	5	310	2	8,200	675
5	Pakowkami Lake, Little Detroit, Turnbull and Bacon Islands.....	1	10	900	2	3	1,800	7	8	400	1	1,000	170
6	Fitzwilliam, Squaw and Duck Islands	7	192	35,000	35	3	1,550	6				288,000	34,300
7	South Bay, Kagowong and Little Current	3	59	8,000	16	1	225	2	6	700	11	148,600	14,460
8	Killarney					5	2,925	11	6	880	9	48,300	2,303
9	Meldrum, Providence, Sheguin- dah, and Gore Bays	4	99	17,500	18	2	900	5	2	150	4	220,500	22,750
10	Wekwemikong, Mississauga Straits, Wabino Channel, Gron- dine Point.....	1	23	5,000	6	3	1,300	5				60,000	4,000
11	Manitowaning Bay, Tamarack Cove, Manitoulin, Club and Berry Islands					4	3,150	9	1	50	2	11,000	1,500
12	Centre, George, Hamilton and Rabbit Island.....	1	24	4,000	5	2	1,100	5	1	50	2	1,600	160
13	Bedford, Heywood and Cockburn Islands					1	1,500	3	2	85	4	10,800	800
	Totals.....	19	462	81,400	90	37	20,400	76	55	4,390	63	868,576	86,538

Return of the kinds, quantities and values of fish caught during

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel, or Dore.
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
	<i>Lake Huron, North Channel.</i>								
1	Thessalon	300			48,702		40,792	7,450	3,261
2	Spanish, St. Joseph's, Cedar Islands and Spragge	700	500	200	6,918	200	9,750	8,900	5,856
3	Little Laloche, Gordon, Burrows, Rock and William Lakes		1,180				1,080	2,375	1,900
4	Bruce Mines, Algoma Mills, Buswell's Point and McKinnon		4,793		5,188		20,384	10,672	82,229
5	Pakowkami Lake, Little Detroit, Turnbull and Bacon Islands			400	21,528		21,320	2,048	11,846
6	Fitzwilliam, Squaw and Duck Islands			700	130,573	700	793,261	325	
7	South Bay, Kagowong, and Little Current			1,100	37,159	4,900	229,368	2,318	89
8	Killarney				115,027		30,339	15,859	17,856
9	Meldrum, Providence, Sheguindah and Gore Bays			700	106,578	2,700	355,181	2,294	313
10	Wekwemikong Bay, Mississauga Straits, Wabino Channel, Grondine Point								41,826
11	Manitowaning Bay, Tamarack Cove, Manitoulin Club and Berry Islands	700			63,359		18,228	2,432	
12	Centre, George, Hamilton and Rabbit Island				26,539		22,701	1,031	3,843
13	Bedford, Heywood and Cockburn Islands			900	118,000		18,349	3,230	18,648
	Totals	1,700	6,473	4,200	688,121	8,500	1,617,645	59,869	194,612
	Values	\$ c. 170 00	\$ c. 323 65	\$ c. 420 00	\$ c. 68,812 10	\$ c. 850 00	\$ c. 161,764 50	\$ c. 4,789 52	\$ c. 19,461 20

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the Public Waters of Lake Huron, North Channel.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
			6	1,500									3	\$ 350	1	\$ 200
			4	1,050									4	325	2	150
			20	5,600	5	150							7	2,400	7	6,550
			21	6,400									6	1,800	4	4,800
			24	17,000									2	900	1	500
			5	4,000									2	600	2	300
			19	8,000									2	700	3	3,600
			15	8,200									1	600	1	200
			16	7,500									1	600	1	150
			15	8,000									2	400	2	3,200
			5	1,500									1	250	1	300
			150	68,750	5	150							31	8,925	25	19,950

the year 1918, in the Public Waters of Lake Huron, North Channel.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and Coarse fish.	Caviare.	Sturgeon Bladders.	Pickerei (Blue).	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.		\$ c.
151		4,760				41,530				12,238 65
610		1,115				16,257				4,059 50
						14,300				1,262 00
4,234		484			376	64,595				15,770 08
2,868						38,469	100			8,126 89
			32,460							94,497 00
		3,842	18,904			16,608				29,603 78
37		119			227	4,487				17,831 31
353		500				70,966				54,356 97
3,081						11,234	3			13,632 71
318		229	16,000		43	14,366				7,129 09
355						11,334				16,468 05
107						25,170				4,608 05
12,114		11,049	67,364		646	329,316	103			279,584 08
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,817 10		552 45	4,041 84		12 92	16,465 80	103 00			279,584 08

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1918,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
Georgian Bay.													
1	Byng Inlet	2	26	11,000	9	4	5,350	9	2	20	4	132,000	12,900
2	Parry Sound	4	60	14,000	24	9	2,900	12	16	608	6	270,500	21,200
3	Waubauskene								7	395	8	5,700	825
4	Penetanguishene					3	900	4	2	625	3	11,564	1,350
5	Collingwood	4	106	18,000	20	5	1,520	8	1	50	2	258,000	16,000
6	Meaford (including Owen Sound Bay)	5	99	22,000	23	24	11,450	48	18	830	17	300,925	21,130
7	Colpoys Bay to Tobermory	2	44	4,000	11	14	5,900	32	8	610	17	208,200	9,870
	Totals	17	335	69,000	87	59	30,020	113	54	3,138	57	1,186,889	82,975

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
	<i>Georgian Bay.</i>								
1	Byng Inlet			4,400	144,039		50,250	21,688	48,547
2	Parry Sound	25,000	235	62,050	161,376	62,550	205,703	4,518	7,029
3	Waubauskene	400	2,021	200	2,837		500	12,496	9,929
4	Penetanguishene	900	1,800	1,150	31,400	800	48,292	200	1,000
5	Collingwood		37,688		12,259		111,668		
6	Meaford (including Owen Sound Bay)		4,380	1,250	4,200	77,300	386,854	25	
7	Colpoys Bay to Tobermory		29,510	100	6,026	68,200	325,047		150
	Totals	26,300	75,694	69,150	362,137	208,850	1,128,314	38,927	66,655
	Value	\$ c. 2,630 00	\$ c. 3,784 70	\$ c. 6,915 00	\$ c. 36,213 70	\$ c. 20,885 00	\$ c. 112,831 40	\$ c. 3,114 16	\$ c. 6,665 50

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the fishing in the Public Waters of the Georgian Bay.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....	12	10,300	.....	.....	.....	.....	.....	.....	.....	.....	2	3,800	1	1,000
.....	5	2,508	.....	.....	.....	.....	1,300	125	.....	.....	4	1,700	6	1,048
.....	12	235	.....	.....	.....	.....	.....	.....	1	25	2	1,100
.....	2	100	1	25
.....
.....	12,300	1,455	.....	.....	7	650	9	950
.....	5	2,000	.....	.....	.....	.....	6,200	240	.....	.....	3	350	3	375
.....
.....	22	14,808	12	235	.....	.....	19,800	1,820	.....	.....	19	6,025	22	4,498

during the year 1918. in the Public Waters of the Georgian Bay.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders	Pickerei (blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.		\$ c.
1,407	290	200	14,000	70	.....	.....	27,466 89
.....	15	238	.....	.....	.....	52,759 19
205	2,500	.....	4,050	4,908	14,742	.....	.....	.....	3,802 34
.....	1,100	.....	.....	9,560 20
1,000	14,427 10
.....	6,600	.....	.....	.....	.....	.....	.....	47,577 40
.....	69,159	.....	.....	.....	.....	.....	.....	45,577 34
2,612	2,500	75 759	4,340	5,123	28,980	1,170	.....	.....	201,170 46
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	.....	.....	\$ c.
391 80	125 00	4,545 54	347 20	102 46	1,449 00	1,170 00	.....	.....	201,170 46

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1918,

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake Huron (Proper).</i>			\$			\$			\$			\$
1	Tobermory to Southampton	8	150	26,000	43	15	8,150	35	13	2,325	24	396,250	38,600
2	Southampton to Pine Point.....	1	14	4,000	5	2	1,900	7	1	50	2	80,250	11,315
3	County of Huron.....	1	10	1,500	3	13	6,400	26	26	1,070	52	90,009	10,744
4	County of Lambton (including River St. Clair).....					26	9,480	39	28	573	30	.....	.....
	Totals.....	10	174	31,500	51	56	25,930	107	68	4,418	108	566,509	60,859

Returns of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel, or Dore.
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
	<i>Lake Huron (Proper).</i>								
1	Tobermory to Southampton	8,400	35,280	2,700	22,703	38,054	586,504	899	372
2	Southampton to Pine Point.....		5,164	.....	.....		48,854	.....	.....
3	County of Huron.....	5,300	68,750	.....	7,010	300	77,997	.....	14,600
4	County of Lambton (including River St. Clair).....	200	140,906	.....	33,255	5,000	18,976	550	189,386
	Totals.....	13,900	250,100	2,700	62,968	43,354	732 331	1,449	204,358
		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
	Values.....	1,390 00	12,505 00	270 00	6,296 80	4,335 40	73,233 10	115 92	20,435 80

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Huron (Proper).

Fishing material.														Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.		
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	
		\$		\$		\$		\$		\$		\$		\$		\$	
.....	.....	.....	2	900	.....	.....	.....	.....	3,900	220	.....	.....	7	3,300	3	650
.....	.....	.....	10	5,000	.....	.....	.....	.....	.....	.....	.....	.....	11	900	2	.....
4	175	187	50	26,600	3	225	7	69	600	65	.....	.....	5	1,175	.....	.....
4	175	187	62	32,500	3	225	7	69	4,500	285	.....	.....	25	6,325	5	1,150

during the year 1918, in the Public Waters of Lake Huron (Proper).

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders.	Pickarel (blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.		\$ c.
.....	.....	4,378	173,746	.....	.....	8,677	.....	.....	.....	78,786 73
5,280	.....	54,364	10,442	.....	.....	52,916	100	.....	.....	8,003 80
13,503	4	5,272	.....	500	8,212	82,428	787½	49	.....	39,202 83
18,783	4	64,014	231,858	500	8,212	144,021	887½	49	.....	146,834 08
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
2,817 45	24	3,200 70	13,911 48	40 00	164 24	7,201 05	887 50	29 40	.....	146,834 08

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1918,

Number	District.	Fishing material.									
		Tugs.			Gasoline Launches.		Sail or Row Boats.			Gill-Nets.	
		No.	Tonnage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.
	<i>Lake St. Clair.</i>						\$			\$	
1	Kent County (including River Thames)				31	11,200	54	44	3,120	56	.....
2	Essex County				17	4,700	36	46	1,625	79	.....
3	Detroit River				2	700	13	25	525	50	.....
	Totals				50	16,600	103	115	5,270	185	.....

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
	<i>Lake St. Clair.</i>	brls.	lbs.	brls.	lbs.	brls.	lbs.	lbs.	lbs.
1	Kent County (including River Thames)							46,074	20,046
2	Essex County		950		17,580			11,171	19,575
3	Detroit River				11,430			4,785	1,250
	Totals		950		29,010			62,030	40,871
	Values		\$ c. 47 50		\$ c. 2,901 00			\$ c. 4,962 40	\$ c. 4,087 10

FISHERIES.

The quantity and value of all fishing materials and other fixtures employed in the Public Waters of Lake St. Clair, etc.

Fishing material.														Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.		
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.	
		\$		\$		\$		\$		\$		\$		\$		\$	
4	4,239	2,935	.....	.....	102	10,400	.....	.....	900	14	.....	.....	25	7,500	12	1,650
2	5,750	2,175	8	3,000	70	6,900	.....	.....	1,800	90	.....	.....	14	3,350	.....	.....
6	3,108	2,195	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	315
2	13,097	7,305	8	3,000	172	17,300	.....	.....	2,700	104	.....	.....	39	10,850	14	1,965

During the year 1918, in the Public Waters of Lake St. Clair, etc.

Sturgeon.	Eds.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders	Pickrel (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.		\$ c.
.....	84,640	.....	40,998	98,965	260,413	.....	.....	550	28,257 31
14,700	61,311	.....	21,220	63,400	124,658	451	.....	.....	19,576 73
.....	1,530	.....	375	62,060	12,070	.....	.....	.....	3,602 60
14,700	147 481	.....	62,593	224,455	397,141	451	.....	550	51,436 64
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.		\$ c.	\$ c.
205 00	7,374 05	.....	5,007 44	4,489 10	19,857 05	451 00	.....	55 00	51,436 64

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the fishing industry during the year 1918.

Number.	District.	Fishing material.											
		Tugs			Gasoline Launches.			Sail or Row Boats.			Gill-Nets.		
		No.	Ton- nage.	Value	Men.	No.	Value	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake Erie.</i>			\$			\$			\$			\$
1	Pelee Island.....	2	138	12,000	16	11	7,500	34	19	920	20	53,260	11,52
2	Essex County.....					37	25,990	83	32	1,140	12	18,400	1,87
3	Kent County, West.....	2	46	19,000	16	27	19,450	68	17	1,335	2	120,000	14,00
4	Kent County, East.....					19	12,250	69	15	6,285	13	5,000	1,30
5	Elgin County, West.....	2	66	19,000	12	17	8,000	52	10	440	4	273,780	11,31
6	Elgin County, East.....	20	696	148,000	124	10	8,200	38	2	100	2	729,200	94,00
7	Norfolk County.....	11	299	109,500	78	26	12,450	78	55	2,215	99	246,500	29,80
8	Haldimand County (to and in- cluding the Grand River).....	7	146	31,500	28	19	9,290	40	19	560	16	136,800	13,95
9	Port Maitland to Port Colborne.....					2	1,000	4					
10	Port Colborne to Niagara Falls.....								17	882	18	4,800	60
	Totals.....	44	1,391	339,000	274	168	104,130	466	186	13,877	186	1,587,740	178,36

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
	<i>Lake Erie.</i>								
1	Pelee Island.....		532,138		128,745			70	16,91
2	Essex County.....		604,922		270,775			2,190	62,12
3	Kent County, West.....		1,616,583		74,437				36,87
4	Kent County, East.....		1,100,012		44,890			138,591	18,66
5	Elgin County, West.....		1,225,565		46,928			1,668	21,22
6	Elgin County, East.....		4,570,430		150,483		106	12,868	8,93
7	Norfolk County.....		2,362,124		196,589		1,329	71,251	15,21
8	Haldimand County (to and including the Grand River).....		1,480,399		213,612		1,011	1,241	4,18
9	Port Maitland to Port Colborne.....		38,820		1,797			52	23
10	Port Colborne to Niagara Falls.....		1,000					1,200	
	Totals.....		13,531,993		1,128,256		2,446	229,131	184,379
	Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
			676,599.65		112,825.60		244.60	18,330.48	18,437.9

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Erie.

Fishing material.													Other fixtures used in fishing.			
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
3	600	500	24	11,000	...	...	...	...	...	...	...	...	4	6,850	1	900
7	2,100	965	177	117,810	3	50	...	...	...	...	...	...	23	18,950	7	1,050
2	150	300	130	90,400	...	...	...	...	...	...	...	...	27	36,300	12	4,825
6	2,400	1,200	92	63,700	...	...	...	...	...	...	...	...	28	16,850	13	2,700
...	...	...	87	53,800	...	...	...	...	...	...	...	...	15	13,100	7	8,700
...	...	...	46	36,750	...	...	5	42	5,650	86	...	...	10	13,650	6	3,450
31	12,280	7,600	64	36,000	29	677	...	...	...	...	...	...	17	17,250	14	3,300
9	825	670	63	28,150	...	...	9	71	...	...	...	...	13	4,350	6	950
...	...	...	6	2,500	...	...	...	...	...	...	...	...	2	300	...	...
1	50	18	...	...	...	...	...	...	3,350	66	...	...	...	...	...	...
59	18,405	11,253	689	440,110	32	727	14	113	9,000	152	...	...	139	127,600	66	25,875

during the year 1918, in the Public Waters of Lake Erie.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue).	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.		\$ c.
8,959	113,808	.....	2,414	63,990	52,014	424	.....	10,530	53,763 77
9,337	230,785	.....	3,859	107,298	333,076	292	.....	290,325	125,083 78
1,840	431,814	.....	...	14,566	93,670	99	.....	235,733	142,474 27
909	283,515	.....	1,190	67,060	42,098	34½	.....	...	90,331 58
961	306,645	.....	230	207	19,156	30	.....	85,366	93,251 08
1,052	443,201	.....	14,482	198	19,260	28	.....	67,864	276,760 81
6,738	194,965	.....	25,201	345,512	149,622	203	.....	18,498	174,338 25
16,158	49,051	.....	24	111,301	41,971	368	.....	64,624	112,033 57
1,286	830	.....	...	...	1,000	30	.....	813	2,544 06
4,685	1,600	.....	...	1,361	14,655	311½	12	11,200	3,127 42
51,928	2,056,214	.....	47,400	711,493	766,522	1,820	12	784,953	1,073,708 59
\$ c.		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
7,789 20	102,810 70	.....	3,792 00	14,229 86	38,326 10	1,820 00	7 20	78,495 30	1,073,708 59

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1918

Number.	District.	Fishing material.											
		Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
	<i>Lake Ontario.</i>			\$			\$			\$			\$
1	Lincoln County.....	1	17	4,000	6	27	12,600	52	7	840	16	129,550	11,219
2	Welland County.....					11	4,650	24	10	460	14	64,000	4,700
3	Wentworth County.....					22	7,545	44	2	125	4	118,000	7,250
4	Halton County.....					4	2,000	4	2	50	3	18,000	1,900
5	Peel County.....					8	2,450	16	12	550	14	27,800	2,530
6	York County.....					8	3,250	17	4	260	8	39,900	4,015
7	Ontario County.....					2	1,000	4				34,000	2,650
8	Durham County.....	1	20	5,000	4	2	4,725	28	32	1,315	52	67,412	6,135
9	Northumberland County.....					14	15,770	105	121	4,863	190	334,661	23,091
10	Prince Edward County.....					58	1,525	15	130	8,903	245	82,630	9,177
11	Bay of Quinte (Proper).....					11	1,855	14	21	965	27	62,400	4,785
12	Bay of Quinte (Eastern Channel).....					8	3,500	23	42	1,512	61	37,000	2,520
13	Wolfe Island and Vicinity					14							
	Totals	2	37	9,000	10	187	60,870	346	383	19,843	634	1015323	79,972

Return of the kinds, quantities and values of fish caught

Number.	District.	Herring, salted.	Herring, fresh.	Whitefish salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickeral or Dore.
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
	<i>Lake Ontario.</i>								
1	Lincoln County		423,936		106,641		6,750		2,075
2	Welland County							33	
3	Wentworth County		33,100		65,971		3,436	2,690	
4	Halton County		253,900		60,250		34,050		
5	Peel County		5,480		2,880		16,610		
6	York County		781		37,038		4,603		
7	Ontario County		4,050		98,992		5,343	280	
8	Durham County	400	7,300	2,000	51,884		4,509		
9	Northumberland County ..	3,150	94,476		119,058		69,910	39,734	
10	Prince Edward County	1,800	277,244	60,100	433,078	250	176,212	30,078	78
11	Bay of Quinte (Proper) ..	200	653,985	350	213,920			109,360	9,386
12	Bay of Quinte (Eastern Channel) ..	700	36,700	200	68,050	200	34,275	4,140	2,350
13	Wolfe Island and Vicinity	200	4,100	350	15,739	1,400	29,903	26,485	1,252
	Totals	6,450	1,795,052	63,000	1,273,501	1,850	385,601	212,800	15,141
	Values	\$ c. 645 00	\$ c. 89,752 60	\$ c. 6,300 00	\$ c. 127,350 10	\$ c. 185 00	\$ c. 38,560 10	\$ c. 17,024 00	\$ c. 1,514 10

the quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake Ontario.

* One machine used in Niagara River.
† 148 of these are spearing houses, value \$1,776.

during the year 1918, in the Public Waters of Lake Ontario.

Sturgeon.	Rels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickrel (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.		\$ c.
1,600	610	5,000		450	18,000	26,106				35,935 40
				2	6	137				9 77
		500		4,035	3,185	89,470			5,300	14,225 90
	700				2,000					22,207 00
						3,000				2,373 00
					31,050	7,237				5,186 00
				98	1,515	15,199				11,456 49
				2,000		20,181				7,413 35
	8,140	9,150		47,033	100	79,381				35,793 91
	20,297	14,761	350	33,363	72,186	175,195	300			98,569 63
	78,714	53,033		118,895	12,636	250,585		2,000		94,701 71
	4,031	4,100		2,009		8,250				13,763 06
	23,936	21,925		27,920	1,700	35,065				13,761 46
1,600	136,428	108,469	350	235,796	142,378	709,806	300	2,000	14,941	355,396 67
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
240 00	8,185 68	5,423 45	21 00	18,863 68	2,847 56	35,490 30	300 00	1,200 00	1,494 10	355,396 67

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1918,

Fishing material.													
Number.	District.	Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
Inland Waters.													
1	Frontenac County			\$	3	625	3	26	634	23			\$ c.
2	Lanark and Leeds Counties,				11	3,325	19	55	1,370	80			
3	Grenville, Dundas, Stormont and Prescott Counties.....				3	600	6	21	380	24	600	33	
4	Russell, Carleton and Victoria Counties.....				4	2,300	5	23	285	22	2,200	105	
5	Muskoka and Simcoe Counties....				1	600	1	2	45	8	1,000	200	
6	Lake Simcoe.....				8	4,950	21	13	174	8	7,400	712	48
7	Lake Nipissing.....				7	3,500	15						
8	Nipissing and Timiskaming Dis- tricts.....				16	7,450	36	18	665	18	23,950	3,622	
	Totals.....				16	23,350	106	158	3,553	183	35,150	4,672	48

Return of the kinds, quantities and values of fish caught

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickereel or Dore.
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1	Frontenac County							15,446	
2	Lanark and Leeds Counties.....							16,698	20
3	Grenville, Dundas, Stormont and Prescott Counties.....							1,839	595
4	Russell, Carleton and Victoria Counties.....				250			2,500	715
5	Muskoka and Simcoe Counties....		315		15,395		48,821		4,849
6	Lake Simcoe.....		1,148		48,266			13,239	58,559
7	Lake Nipissing.....		27,740						
8	Nipissing and Timiskaming Dis- tricts.....	100	13,012	12,600	24,508	30,000	12,680	40,775	88,829
	Totals.....	100	42,215	12,600	88,419	30,000	61,501	90,467	153,667
	Values	\$ c. 10 00	\$ c. 2,110 75	\$ c. 1,260 00	\$ c. 8,841 90	\$ c. 3,000 00	\$ c. 6,150 10	\$ c. 7,239 76	\$ c. 15,366 70

FISHERIES.

The quantity and value of all fishing materials and other fixtures employed in the Public Waters of Inland Waters.

Fishing material.													Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
1	20	40			70	2,340										
					244	6,480			1,500	100			3	600		
1	7	3			23	675	3	12 00	3,000	162						
						5	130	2	3 75	4,200	63		2	400		
7	178	59														
5	2,000	1,650			5	100	1	4 00	4,000	68	121	636 50	3	1,125	2	800
			14	7,300									6	2,600	5	300
			18	3,200	16	218							13	2,975	7	505
4	2,205	1,752	32	10,500	363	10,043	6	19 75	12,700	393	121	636 50	27	7,700	14	2,205

During the year 1918, in the Public Waters of Inland Waters.

Sturgeon.	Eels.	Perch.	Tulibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
.....	6,398	4,825	.....	30,416	300	31,740	.....	.....	.....	5,887 09
1,816	14,379	12,752	1,972	68,606	18,103	6,341	.....	.....	.....	12,546 49
4,550	1,950	1,800	.....	6,625	25	23,948	6	.....	.....	2,830 02
1,375	1,200	2,050	.....	3,175	250	11,385	.....	.....	.....	1,505 50
		4,863	.....	198	84,452	18,565	.....	.....	.....	233 25
98,507			.....	.....	.....	13,445	3,717	.....	.....	32,293 92
870	183	4,915	6,300	3,334	.....	61,585	.....	.....	.....	24,895 50
107,118	24,110	31,205	8,272	112,354	103,130	234,359	3,723	.....	.....	90,041 95
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,067 70	1,446 60	1,560 25	496 32	8,988 32	2,062 60	11,717 95	3,723 00	.....	.....	90,641 95

ONTARIO

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats, industry during

Fishing material.													
Number	District.	Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
		No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
				\$			\$			\$			\$
1	Kenora & Rainy River Dists.	3	38	5,095	11	94	35,770	166	83	3,389	70	180,830	29,641 00
2	Lake Superior.....	30	761	115,500	251	36	18,050	81	74	7,460	94	1,163,650	109,015 00
3	Lake Huron (North Channel)....	19	462	81,400	90	37	30,400	76	55	4,290	63	868,976	86,538 00
4	Georgian Bay	17	335	69,000	87	59	30,020	113	54	3,138	57	1,186,889	82,975 00
5	Lake Huron (Proper)	10	174	31,500	51	56	25,930	107	68	4,418	108	566,509	60,859 00
6	Lake St. Clair, etc.....					50	16,690	103	115	5,270	185		
7	Lake Erie	44	1,391	339,000	274	168	104,130	466	186	13,877	186	1,587,740	178,365 00
8	Lake Ontario.....	2	37	9,000	10	187	60,870	346	383	19,843	634	1,015,323	79,972 00
9	Inland Waters					16	23,350	106	158	3,553	183	35,150	4,672 40
	Totals.....	125	3,198	650,495	774	703	335,120	1,564	1176	65,338	1,580	6,605,067	632,037 40

Recapitulation of the kinds, quantities and values

Number	District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickrel or Dore.
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1	Kenora and Rainy River Districts			1,600	677,706	229,800	94,205	673,761	753,37
2	Lake Superior.....	283,100	3,681,609	12,400	1,517,395	90,800	2,659,057	18,354	107,28
3	Lake Huron (North Channel)....	1,700	6,473	4,200	688,121	8,500	1,617,645	59,869	194,61
4	Georgian Bay	26,300	75,694	69,150	362,137	208,850	1,128,314	38,927	66,65
5	Lake Huron (Proper)	13,900	250,100	2,700	62,968	43,354	732,331	1,449	204,35
6	Lake St. Clair, etc.....		550		29,010			62,030	48,87
7	Lake Erie		13,531,993		1,128,256		2,446	229,131	184,37
8	Lake Ontario.....	6,450	1,795,052	63,000	1,273,501	1,850	385,601	212,800	15,14
9	Inland Waters.....	-100	42,215	12,600	88,419	30,000	61,501	90,497	153,66
	Totals.....	331,550	19,384,086	165,650	5,827,513	613,154	6,681,100	1,386,818	1,720,35
	Values	\$ c. 35,155 00	\$ c. 966 204 30	\$ c. 16,565 00	\$ c. 582,751 30	\$ c. 61,315 40	\$ c. 668,110 00	\$ c. 110,945 44	\$ c. 172,033 30

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the fishing the year 1918.

Fishing material.											Other fixtures used in fishing.					
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
\$			\$ c.		\$ c.		\$ c.		\$ c.		\$ c.		\$		\$	
.....	.....	.....	68	25,100 00	41	2,340 00	.....	.....	.....	.....	.....	.....	86	18,700	63	9,360
.....	.....	.....	38	26,300 00	.....	.....	.....	.....	.....	2,000	60 00	.....	29	37,000	22	8,350
.....	.....	.....	150	68,750 00	5	150 00	.....	.....	.....	.....	.....	.....	31	8,925	25	19,950
.....	.....	.....	22	14,808 00	12	235 00	.....	.....	.....	19,800	1,820 00	.....	19	6,625	22	4,498
4	175	187	62	32,500 00	3	225 00	7	69 00	.....	4,500	285 00	.....	25	6,325	5	1,150
72	13,097	7,305	8	3,000 00	172	17,300 00	.....	.....	.....	2,700	104 00	.....	39	10,850	14	1,965
59	18,405	11,253	689	440,110 00	32	727 00	14	113 00	.....	9,000	152 00	.....	139	127,600	66	25,875
30	2,520	1,850	.....	.....	704	19,436 00	0	92 70	.....	7,800	320 50	148 222 00	236	14,836	17	1,425
14	2,205	1,752	32	10,500 00	363	10,913 00	6	1,975 00	.....	12,700	333 00	121 636 50	27	7,700	14	2,205
179	36,402	22,347	1,069	621,068 00	1,332	50,456 00	36	2,249 70	.....	58,500	3,134 50	269 858 50	631	238,561	248	74,778

*148 of these are spearing houses, value \$1,776.

of fish caught during the year 1918.

Sturgeon.	Eels.	Perch.	Tulibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.		\$ c.
24,291	.....	7,268	240,418	207,524	12,001	364,437	823	.....	12,815	285,169 40
6,003	500	.....	8,873	.....	820	754,741	.....	.....	.....	691,768 45
12,114	.....	11,049	67,364	.....	646	329,316	102	.....	.....	279,584 08
2,612	.....	2,500	75,759	4,340	5,123	28,980	1,170	.....	.....	201,170 46
18,783	4	64,014	231,858	.....	500	8,212	144,021	887 1/2	49	146,834 08
14,700	.....	147,481	.....	62,593	224,455	397,141	451	.....	550	51,436 64
51,928	.....	2,056,214	.....	47,400	711,493	766,522	1,820	12	784,953	1,073,708 59
1,600	136,428	108,469	350	235,756	142,378	709,806	300	2,000	14,941	355,396 67
107,118	24,110	31,205	8,272	112,354	103,130	234,359	3,723	.....	.....	90,041 95
239,149	161,042	2,428,200	632,894	670,507	1,208,258	3,729,323	9,277 1/2	2,061	813,259	3,175,110 32
\$ 35,872 35	\$ 9,662 52	\$ 121,410 00	\$ 37,973 64	\$ 53,640 56	\$ 24,165 16	\$ 186,466 15	\$ 9,277 50	\$ 1,236 60	\$ 81,335 90	\$ 3,175,110 32

Comparative Statement of yield for 1917-18, according to Districts.

	1917.	1918.	Increase.	Decrease.
Kenora and Rainy River Districts:				
Herring, Salted	167,920			167,920
Herring, Fresh	2,300	1,600		700
Whitefish, Salted	680,717	677,706		3,011
Whitefish, Fresh	250	229,800	229,550	
Trout, Salted	111,804	94,205		17,599
Trout, Fresh	787,359	673,761		113,598
Pike	961,653	753,370		208,283
Pickereel (Dore)	20,460	24,291	3,831	
Sturgeon				
Eels	679	7,268	6,589	
Perch	174,445	240,418	65,973	
Tullibee	8,000	207,524	199,524	
Catfish	173	12,001	11,828	
Carp	592,638	364,437		228,201
Mixed and Coarse Fish	790	823	33	
Caviare	677			677
Sturgeon Bladders	No.			
Pickereel (Blue)	lbs.	12,815	12,815	
Lake Superior:				
Herring, Salted	265,500	283,100	17,600	
Herring, Fresh	2,443,201	3,681,609	1,238,408	
Whitefish, Salted	2,600	12,400	9,800	
Whitefish, Fresh	446,457	1,517,395	1,070,938	
Trout, Salted	74,300	90,800	16,500	
Trout, Fresh	1,660,957	2,659,057	998,100	
Pike	17,806	18,354	548	
Pickereel (Dore)	70,070	107,282	37,212	
Sturgeon	5,082	6,003	921	
Eels		500	500	
Perch				
Tullibee		8,873	8,873	
Catfish	75			75
Carp	700	820	120	
Mixed and Coarse Fish	332,774	754,741	421,967	
Caviare	22			22
Sturgeon Bladders	No.			100
Lake Huron, (North Channel).				
Herring, Salted	1,800	1,700		100
Herring, Fresh	38,564	6,473	32,091	
Whitefish, Salted	21,100	4,200		16,900
Whitefish, Fresh	594,035	688,121	94,086	
Trout, Salted	6,600	8,500	1,900	
Trout, Fresh	1,475,754	1,617,645	141,891	
Pike	112,488	59,869		52,619
Pickereel (Dore)	260,321	194,612		65,709
Sturgeon	12,103	12,114	11	
Eels				
Perch	24,731	11,049		13,682
Tullibee	111,737	67,364		44,373
Catfish	122			122
Carp	68	646	578	
Mixed and Coarse Fish	361,909	329,316		32,593
Caviare	53	103	50	
Georgian Bay:				
Herring, Salted	3,800	26,300	22,500	
Herring, Fresh	90,360	75,694		14,666
Whitefish, Salted	46,600	69,150	22,550	
Whitefish, Fresh	415,185	362,137		53,048
Trout, Salted	62,400	208,850	146,450	

Comparative Statement of yield for 1917-18, according to Districts—Continued.

	1917.	1918.	Increase.	Decrease
Georgian Bay—Continued:				
Trout, Fresh lbs.	1,230,878	1,128,314		102,564
Pike “	81,687	38,927		42,760
Pickerel (Dore) “	54,598	66,655	12,057	
Sturgeon “	3,239	2,612		607
Eels “				
Perch “	2,915	2,500		415
Tullibee “	176,828	75,759		101,069
Catfish “	6,940	4,340		2,600
Carp “	11,868	5,123		6,745
Mixed and Coarse Fish “	32,810	28,980		3,830
Caviare “	410	1,170	760	
Lake Huron (proper):				
Herring, Salted lbs.	46,600	13,900		32,700
Herring, Fresh “	376,815	250,100		126,715
Whitefish, Salted “	8,200	2,700		5,500
Whitefish, Fresh “	60,135	62,968	2,833	
Trout, Salted “	33,400	43,354	9,954	
Trout, Fresh “	783,078	732,331		50,747
Pike “	1,737	1,449		288
Pickerel (Dore) “	185,923	204,358	18,435	
Sturgeon “	18,406	18,783	377	
Eels “		4	4	
Perch “	119,417	64,014		55,403
Tullibee “	530,594	231,858		298,736
Catfish “	556	500		56
Carp “	4,558	8,212	3,654	
Mixed and Coarse Fish “	123,656	144,021	20,365	
Caviare “	923	887½		35½
Sturgeon Bladders No.	127	49		78
Lake St. Clair, etc.:				
Herring, Salted lbs.				
Herring, Fresh “		950	950	
Whitefish, Salted “				
Whitefish, Fresh “	30,450	29,010		1,440
Trout, Salted “				
Trout, Fresh “				
Pike “	58,023	62,030	4,007	
Pickerel (Dore) “	64,389	40,871		23,518
Sturgeon “	14,350	14,700	350	
Eels “				
Perch “	131,765	147,481	15,716	
Tullibee “				
Catfish “	63,462	62,593		869
Carp “	102,950	224,455	121,505	
Mixed and Coarse Fish “	685,691	397,141		288,550
Caviare “	280	451	171	
Pickerel (Blue) “		550	550	
Lake Erie:				
Herring, Salted lbs.				
Herring, Fresh “	14,157,839	13,531,993		625,846
Whitefish, Salted “				
Whitefish, Fresh “	1,239,521	1,128,256		111,265
Trout, Salted “				
Trout, Fresh “	2,344	2,446	102	
Pike “	141,682	229,131	87,449	
Pickerel (Dore) “	227,459	184,379		43,080
Sturgeon “	47,163	51,928	4,765	
Eels “	18,936			18,936

Comparative Statement of yield for 1917-18, according to Districts—Continued.

	1917.	1918	Increase.	Decrease.
Lake Erie.—Continued:				
Perch .....lbs.....	995,413	2,056,214	1,060,801	
Tullibee "	12,225			12,225
Catfish "	36,707	47,400	10,693	
Carp "	666,773	711,493	44,720	
Mixed and Coarse Fish "	668,986	766,522	97,536	
Caviare "	3,149	1,820		1,329
Sturgeon Bladders .....No.....	24	12		12
Pickere! (Blue) .....lbs.....	565,476	784,953	219,477	
Lake Ontario:				
Herring, Salted .....lbs.....	4,100	6,450	2,350	
Herring, Fresh "	1,930,186	1,795,052		125,134
Whitefish, Salted "	21,000	63,000	42,000	
Whitefish, Fresh "	1,140,445	1,273,501	133,056	
Trout, Salted "	2,400	1,850		550
Trout, Fresh "	463,924	385,601		78,323
Pike "	280,377	212,800		67,577
Pickere! (Dore) "	53,660	15,141		38,519
Sturgeon "	2,261	1,600		661
Eels "	126,034	136,428	10,394	
Perch "	213,623	108,469		105,154
Tullibee "		350	350	
Catfish "	225,348	235,796	10,448	
Carp "	391,249	142,378		248,871
Mixed and Coarse Fish "	717,714	709,806		7,908
Caviare "	63	300	237	
Sturgeon Bladders .....No.....		2,000	2,000	
Pickere! (Blue) .....lbs.....		14,941	14,941	
Inland Waters:				
Herring, Salted .....lbs.....	100	100		
Herring, Fresh "	9,506	42,215	32,709	
Whitefish, Salted "	100	12,600	12,500	
Whitefish, Fresh "	37,176	88,419	51,243	
Trout, Salted "		30,000	30,000	
Trout, Fresh "	16,245	61,501	45,256	
Pike "	76,211	90,497	14,286	
Pickere! (Dore) "	78,773	153,667	74,894	
Sturgeon "	9,430	107,118	97,688	
Eels "	24,015	24,110	95	
Perch "	28,526	31,205	2,679	
Tullibee "	8,080	8,272	192	
Catfish "	100,833	112,354	11,521	
Carp "	241,182	103,130		138,052
Mixed and Coarse Fish "	332,208	234,359		97,849
Caviare "	116	3,723	3,607	
Sturgeon Bladders .....No.....	700			700

Statement of the yield and value of the Fisheries of the Province for the year 1918.

Kinds of Fish.	Quantity.	Price.	Value.
		\$ c.	\$ c.
Herring, Saltedlbs.	331,550	10	33,155 00
Herring, Fresh"	19,384,086	5	969,204 30
Whitefish, Salted"	165,650	10	16,565 00
Whitefish, Fresh"	5,827,513	10	582,751 30
Trout, Salted"	613,154	10	61,315 40
Trout, Fresh"	6,681,100	10	668,110 00
Pike"	1,386,818	8	110,945 44
Pickrel (Dore)"	1,720,335	10	172,033 50
Sturgeon"	239,149	15	35,872 35
Eels"	161,042	6	9,662 52
Perch"	2,428,200	5	121,410 00
Tullibee"	632,894	6	37,973 64
Catfish"	670,507	8	53,640 56
Carp"	1,208,258	2	24,165 16
Mixed and Coarse Fish"	3,729,323	5	186,466 15
Caviare"	9,277½	1 00	9,277 50
Sturgeon BladdersNo.	2,061	60	1,236 60
Pickrel (Blue)lbs.	813,259	10	81,325 90
Total			3,175,110 32

Comparative Statement of the yield of the Fisheries of the Province.

	1917	1918	Increase.	Decrease.
Herring, Saltedlbs.	321,900	331,550	9,650	
Herring, Fresh"	19,214,391	19,384,086	169,695	
Whitefish, Salted"	101,900	165,650	63,750	
Whitefish, Fresh"	4,644,121	5,827,513	1,183,392	
Trout, Salted"	179,350	613,154	433,804	
Trout, Fresh"	5,744,984	6,681,100	936,116	
Pike"	1,557,370	1,386,818		170,552
Pickrel (Dore)"	1,956,846	1,720,335		236,511
Sturgeon"	132,494	239,149	106,655	
Eels"	168,985	161,042		7,943
Perch"	1,517,069	2,428,200	911,131	
Tullibee"	1,013,909	632,894		381,015
Catfish"	442,043	670,507	228,464	
Carp"	1,419,521	1,208,258		211,263
Mixed and Coarse Fish"	3,848,386	3,729,323		119,063
Caviare"	5,806	9,277½	3,471½	
Sturgeon BladdersNo.	1,628	2,061	433	
Pickrel (Blue)lbs.	565,476	813,259	247,783	
Total Pounds	42,834,551	46,002,115½		
Total Increase Pounds, 1918			3,167,564½	

Value of Ontario Fisheries from 1870 to 1918, Inclusive.

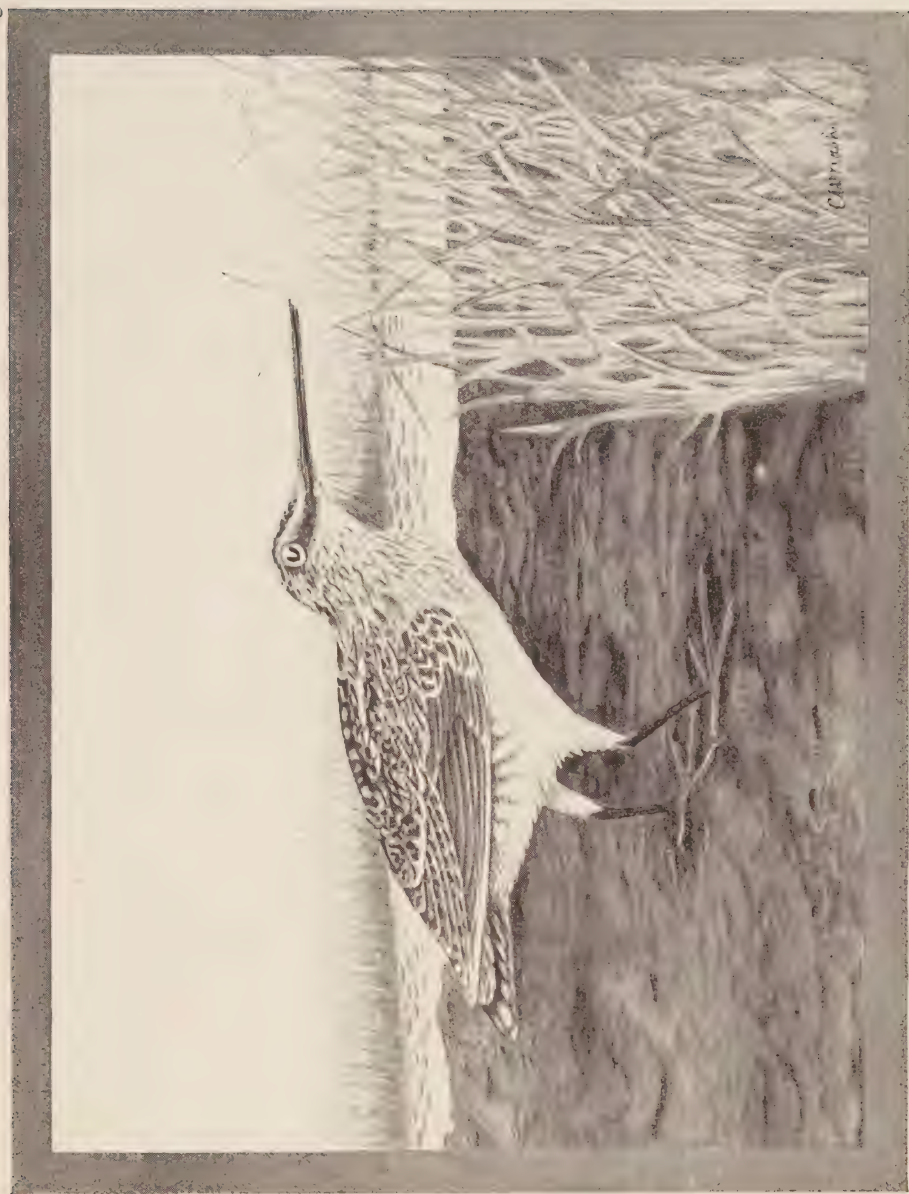
Years.	Value. \$ c.	Years.	Value. \$ c.
1870	264,982 00	1896	1,605,674 00
1871	193,524 00	1897	1,289,822 00
1872	267,633 00	1898	1,433,631 00
1873	293,091 00	1899	1,477,815 00
1874	446,267 00	1900	1,333,293 00
1875	453,194 00	1901	1,428,078 00
1876	437,229 00	1902	1,265,705 00
1877	438,223 00	1903	1,535,144 00
1878	348,122 00	1904	1,793,524 00
1879	367,133 00	1905	1,708,963 00
1880	444,491 00	1906	1,734,865 00
1881	509,903 00	1907	1,935,024 90
1882	825,457 00	1908	2,100,078 63
1883	1,027,033 00	1909	2,237,544 41
1884	1,133,724 00	1910	2,348,269 57
1885	1,342,692 00	1911	2,419,178 21
1886	1,435,998 00	1912	2,842,877 09
1887	1,531,850 00	1913	2,674,686 76
1888	1,839,869 00	1914	2,755,293 11
1889	1,963,123 00	1915	3,341,181 41
1890	2,009,637 00	1916	2,658,993 43
1891	1,806,389 00	1917	2,866,424 00
1892	2,042,198 00	1918	3,175,110 32
1893	1,694,930 00		
1894	1,659,968 00	Total	74,322,013 84
1895	1,584,473 00		

STATEMENT

of the number and value of the Tugs, Gasoline, Sail or Row Boats, Nets, Spears, etc., used in the Fishing Industry of the Province of Ontario during the year 1918.

	Number.	Value. \$ c.
Tugs (3,198 tons)	125	650,495 00
Gasoline Launches	703	335,120 00
Sail or Row Boats	1,176	65,338 00
Gill Nets	6,605,067 yards.	632,037 48
Seines (36,402 yds.)	179	22,347 00
Pound Nets	1,069	621,068 00
Hoop Nets	1,332	50,446 00
Dip and Roll Nets	36	2,249 70
Baited Hooks	58,500	3,134 50
Spears	269	858 50
Freezers and Ice Houses	631	238,561 00
Piers and Wharves	248	74,778 00
Total		2,696,443 18

Number of men employed on Tugs	774
do do Gasoline Launches	1,564
do do Sail or Row Boats	1,580
	3,918



Wilson's Snipe.

Jas. G. Baillie Jr.

June 18, 1931

Government
Publications

Fourteenth Annual Report

OF THE

GAME AND FISHERIES DEPARTMENT

1920

PRINTED BY ORDER OF
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Distributing Parent Bass by Tank Car.

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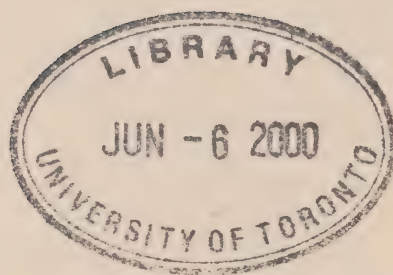


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THE RYERSON PRESS



To His Honour LIONEL HERBERT CLARKE,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Fourteenth Annual Report of the Game and Fisheries Department of this Province.

I have the honour to be,

Your Honour's most obedient servant,

H. MILLS,

Minister of Mines.

Toronto, 2nd February, 1921.

FOURTEENTH ANNUAL REPORT

OF THE

Game and Fisheries Department of Ontario

To the Honourable H. MILLS,

Minister of Mines.

SIR,—I have the honour to place before you the Fourteenth Annual Report of the work of the Game and Fisheries Department for the fiscal year ending October 31st, 1920. It will be noted that the marked increase in net revenue since 1917 still continues and the total net revenue for the year amounts to \$327,557.67, of which amount the Department proper contributed \$226,572.73 and the Sales Branch \$100,984.94. A statement of the Sales Branch operations is shown elsewhere in this report.

Comparative Statement of Revenue and Expenditure—Game and Fisheries Department,
1915-1920, as Published in the Public Accounts.

	Revenue.	Expenditure.	Surplus.
1915	\$168,763 47	\$152,872 41	\$15,891 06
1916	174,186 71	157,681 94	16,504 77
1917	219,442 94	154,055 17	65,387 77
1918	258,671 62	167,795 22	90,876 40
1919	346,197 14	185,247 72	160,949 42
1920	466,550 86	239,978 13	226,572 73

SALES BRANCH.

1920	\$353,214 85	\$252,229 91	\$100,984 94
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Statement showing the revenue received from game and also that received from fish in the year 1915 as compared with the year 1920.

	1915.	1920.	Increase.
Revenue from Game	\$52,956 68	\$313,132 39	\$260,175 71
Revenue from Fish	115,806 79	153,418 47	37,611 68
	<hr/> \$168,763 47	<hr/> \$466,550 86	<hr/> \$297,787 39

STATISTICS.

The statistics accompanying this report aside from other details show variety, quantity, and location of all fry and fingerlings distributed from Provincial hatcheries, together with quantity, variety and value of commercial fish produced for 1919 and fishing equipment used, with comparison with other years. All of which have been carefully prepared and affords interesting and valuable information.

FISH.

Commercial licenses were issued in 1919 for 5,960,158 yards of gill nets, 190 seines, 1,144 pound nets, 1,417 hoop nets, 36 dip and roll nets, 199 spears, as well as 69,000 hooks, giving employment to 4,156 men on 123 tugs, 768 gas-line boats and 1,285 sail or row boats. The estimated value of investment in boats, freezers, ice houses, wharves and twine is \$3,039,682.00.

The aggregate catch for the year amounts to 38,145,458 pounds, at an estimated value to fishermen of \$2,721,440.24.

The 1920 reports received from various sources would show that angling for game fish had been very satisfactory and a large number of non-residents have taken advantage of the excellent fishing obtained in so many parts of the Province.

GAME.

Moose and Deer are reported to be quite plentiful and the season has been favourable for hunting, although too mild in many sections to have game kept in first class condition. The number of hunting licenses issued for the year is as follows:

796 Non-resident.
16,943 Resident Deer.
1,988 Resident Moose.

Ruffed Grouse commonly known as *Partridge*.—The numerous reports received in respect to the large number of partridge in the Province permitted the close season to be opened for a period of 15 days, which was welcomed by sportsmen who are appreciative of the protection given by a close season for a number of years.

Quail and Pheasants.—Do not appear to have increased in numbers.

Ducks.—From reports have been taken in goodly numbers as in former years.

FURS.

An abnormal condition in the fur market, which caused unheard-of prices to be paid for all varieties of pelts, continued until early spring and the values placed on furs of every description tempted a very large number of persons to enter into the fur trade, and a corresponding number of persons to hunt and trap. Licenses issued to fur dealers represented fees amounting to \$34,850.27, being an increase of \$17,176.31 over the previous year, and fees collected from the sale of trappers' licenses amounted to \$75,223.54, being an increase of \$36,630.88 over the preceding year. The fur market, however, has since last spring taken a decided reaction and the pendulum has temporarily, at least, swung far in the opposite direction and will, no doubt, have its effect both on the number of dealers' and trappers' licenses sold next year.

Beaver.—Are plentiful in Northern Ontario and a large number were trapped during the season.

Otter.—Are not plentiful.

Marten and Fisher.—Are not reported as plentiful.

Muskrat.—Are apparently on the decline.

As a guide to the importance of the fur-bearing animals as a resource of the Province, a list as shown below of the pelts exported and tanned will furnish some idea of the value of the pelts specified and the importance of the fur trade.

FOR 12 MONTHS ENDING OCTOBER 31ST, 1920.

	Exported.	Tanned.	Total.
Beaver	88,218	7,788	96,006
Fisher	4,036	33	4,069
Marten	6,225	90	6,315
Mink	29,101	4,594	33,695
Muskrat	282,593	151,473	434,066
Otter	3,926	168	4,094

FOR 5 MONTHS ENDING OCTOBER 31ST, 1920.

	Exported.	Tanned.	Total.
Bear	355	54	409
Fox (Cross)	34	5	39
Fox (Red)	174	57	231
Fox (Silver or Black)	11	..	11
Fox (not specified)	237	3	240
Lynx	165	5	170
Raccoon	20	301	321
Skunk	196	886	1,082
Weasel (Ermine)	2,233	862	3,095

making a total of 583,843 skins. The estimated value to the trapper is placed at \$5,811,146.39, being an average of the prices paid for the past year.

GAME SANCTUARIES.

Since my last annual report, the Nopiming Game Sanctuary has been created and is situated between the Counties of Carleton and Renfrew. This is a valuable addition to the few sanctuaries that now exist and I must once more strongly recommend that immediate steps be taken to provide for more sanctuaries in that part of the Province that is so suitable from natural conditions to afford the very apparent present need of Game Preserves of such an area as would tend to protect existing game and to reproduce that which has been so lavishly taken, particularly during the period just past when abnormally high prices prevailed.

HATCHERIES.

During the year, the hatchery under construction at Fort Frances was completed and a successful hatch and distribution of pickerel was made therefrom last spring. Improvements were also made at the Normandale Hatchery, which included a dwelling house for the use of the officer in charge at that point. The details of the fry and fingerlings distributed for the year appear elsewhere in this report and may be considered as satisfactory under the circumstances, having a total distribution of:

43,985,000	Whitefish Fry.
31,030,000	Pickerel "
1,134,000	Trout "
920,000	Herring "
286,700	Speckled Trout Fingerlings.
427,660	Black Bass "
460	Parent Bass.

Total 77,783,820

While very rapid development and progress has been made in the extension of Provincial Hatcheries during the past few years, yet the field is far from covered at the present time and very pressing demands are presented by the residents of every district each and every year for a much greater supply and distribution of fry and fingerlings than the Department has available. I would, therefore, recommend that further hatcheries and breeding ponds be constructed as opportunity affords and as capable officials can be obtained to operate same.

REORGANIZATION.

No matter how wise or necessary restrictions and regulations may be, they are worse than useless and bound to fail in providing the desired remedy if the means of enforcing them are not available. In July last, the Honourable F. C. Biggs, the then Minister in charge of the Game and Fisheries Act, after due consideration, decided that a change in the system of the enforcement of the Act throughout the Province was necessary in the best interests of the game and fish, and the large number of part-time overseers has been replaced by full paid officials who devote their entire time to the interests of the Department and who operate under the control and guidance of District Wardens. The new arrangement of the outside staff has only been in effect for a short period, but from the results already obtained, ample proof has been furnished to justify the reorganization and in due time I am convinced that the Act will be better enforced than at any previous period and result in the conservation of the Province's resources of fish and game.

ACKNOWLEDGMENT.

In conclusion, I desire to advise you that in presenting this report, I am indebted to a large extent for what has been accomplished to the co-operation received not only from the several Departments of the Provincial Government, Game Protective Associations and different railway companies, but also to the loyal support given by the several members of the inside and outside staffs, who have performed their duties willingly and efficiently in the best interests of the Department.

I wish to publicly acknowledge the courtesy of the Federal Government in furnishing this Department with two hundred thousand salmon trout and four hundred and fifty thousand pickerel fry to provide for the demand from the public for a greater fry distribution.

All statistics mentioned, as well as many others, will be found in detail in statements published herein.

All of which is respectfully submitted.

I am,

Your obedient servant,

(Sgd.) D. McDONALD,

Deputy Minister of Game and Fisheries.

Toronto, November 1st, 1920.

STATEMENT OF REVENUE RECEIVED FROM GAME AND FISHERIES DURING THE YEAR ENDED
OCTOBER 31ST, 1920.

Rondeau Park	\$90 19	
Royalty Coupons (Beaver and Otter)	57,462 97	
Royalty on furs	36,940 27	
Trappers' licenses	75,223 54	
Non-resident hunting licenses	19,346 50	
Resident deer licenses	52,265 36	
Resident moose licenses	9,119 46	
Fur dealers' licenses	34,850 27	
Tanners' licenses	120 00	
Game dealers' licenses	556 10	
Hotel and restaurant licenses, etc.	248 00	
Cold storage licenses	50 00	
Guides' licenses	1,526 75	
Fines—game	14,246 88	
Sales—fur, etc.	11,086 10	
Fishing licenses	114,359 31	
Fishery royalties	3,255 11	
Angling permits	30,706 85	
Fines—fish	2,805 45	
Sales—fish, twine, etc.	1,688 02	
Miscellaneous	603 73	
	<hr/>	
	\$466,550 86	\$466,550 86

GOVERNMENT FISH.

Sales of fish, etc.	\$353,214 85	\$353,214 85
	<hr/>	
Total	\$819,765 71	\$819,765 71

D. McDONALD, Esq.,

Deputy Minister of Game and Fisheries,

Toronto, Ont.

DEAR SIR,—I have pleasure in handing you herewith a financial report of the Sales Branch for the fiscal year ending October 31st, 1920, by which you will note that there has been a surplus of cash received over expenditures amounting to \$100,984.94.

The total fish purchased for the fiscal year amounts to 2,268,601 lbs., as against 3,155,902 lbs. of the previous year and the municipalities supplied during the past year being 94, with 214 dealers, against 106 municipalities and 218 dealers for the previous year. The reduction in production is accounted for by the restrictions placed on the source of supply, as no part of the licensed fishermen's catch was taken, and all operations were confined to contracts placed direct with fishermen at Lakes Nipissing and Nipigon, aside from a small percentage of fish taken in other waters during the spawning operations.

All of which is respectfully submitted.

Yours truly,

(Sgd.) GEO. H. RAPSEY,

Superintendent.

SALES BRANCH.

Income and Expenditure for year ending October 31st, 1920.

INCOME.

Cash, paid treasurer	\$353,214 85
----------------------------	--------------

EXPENDITURE.

Paid fishermen	\$144,983 55
Express, freight and cartage	47,771 08
Boxes and cases	14,988 20
London and St. Thomas warehouse, charges	2,433 42
Toronto warehouse, charges	3,858 70
Wages, packing and shipping, Macdiarmid	3,764 12
Salaries, Macdiarmid	2,100 00
Salaries, Toronto warehouse	4,762 26
Salaries, Toronto office	1,025 67
Commission, purchasing	687 24
Travelling expenses	233 94
Sundry expense, Macdiarmid	1,908 89
Sundry expense, Toronto	152 94
Ice	2,867 37
Postage and stationery	1,125 69
Buildings, docks, warehouse, etc., Macdiarmid	6,907 16
Equipment and supplies, Macdiarmid	342 29
Horses, motor and motor boat expense	1,446 57
Telephone and telegraph	231 68
Advertising	40 00
Miscellaneous expense	549 14

	\$252,229 91
Surplus cash in treasury over expenditures	100,984 94

\$353,214 85

WATERS STOCKED.

WITH QUANTITIES AND KINDS OF FISH PLANTED IN EACH IN 1920.

Black Bass Fingerlings distributed from Ponds at Mount Pleasant.

Waters Stocked.	County.	Quantity.
River Thames and Tributaries	Middlesex	70,000
Mississippi Lake	Carleton	20,000
Cedar Creek	Oxford	10,000
Currie's Pond	Middlesex	10,000
Water Works Dam	Dundas	20,000
Kennington Pond	Halton	30,000
Lake Couchiching	Simcoe	20,000
Lake Simcoe	do	20,000
Lake Joseph	Muskoka	20,000
Lake Rosseau	do	20,000
Lake Muskoka	do	20,000
Lake at Huntsville	do	40,000
Clear Lake	Peterboro	20,000
Stony Lake	do	20,000
Rondeau Bay	Kent	20,000
Jackson's Point	Simcoe	10,000
Cameron Lake	Victoria	10,000
Crow Bay	Northumberland	10,000
Pond Mills	Middlesex	5,000
Twin and Crow Lakes	Hastings	10,000
Severn River	Simcoe	20,000
Provincial Museum	(Fingerlings)	200
Credit River	Peel	2,000
Total		427,000
Parent Black Bass at Orient Bay		240
Parent Black Bass in Smith Lake at Kenora		220
Total		460

Speckled Trout Distributed from Mount Pleasant Hatchery.

Waters Stocked.	County.	Quantity.
Kent and Patterson Creeks	Norfolk	20,000
Bickle's Creek	Waterloo	5,000
Rocky Saugeen	Durham	10,000
Little Saugeen	Wellington	10,000
Beaver River	Grey	10,000
Fairy Lake	Halton	25,000
Mill Creek	Waterloo	12,000
Trout Creek	Wentworth	10,000
River Wye	Middlesex	10,000
Clear and Weaver Creeks	Norfolk	5,000
Purvis Lake	Bruce	10,000
Charlston Creek	Frontenac	10,000
Beaver Creek	Wentworth and Wellington	40,000
Cavanville Creek	Durham	5,000
Strong's Creek	Northumberland	10,000
Plato Creek	Peterboro	5,000
Bowan's Creek	do	5,000
Cook's Creek	do	5,000
Sedgrick's Creek	do	5,000
Marsh's Creek	Middlesex	2,500
Reist's and Groff's Creeks	Waterloo	7,000
Creek flowing in Grand River	do	4,000
Dolphin Creek	Grey	4,000
Sydenham Creek	do	4,000
Silver Creek	Bruce	4,000
Maitland and Conestoga	Perth	4,000
Calendon Lake	Dufferin	5,000

Waters Stocked.	County.	Quantity.
Rocky Saugeen River	Grey	5,000
Coldwater River	Simcoe	2,000
Vint's Creek	do	2,000
Mill Creek	Waterloo and Wellington	2,000
Upper Waters of Ouse	Peterboro	10,000
Riverdale Park	Toronto	200
Sixteen Mile Creek	Halton	5,000
Wassagawaga Creek	Peel	4,000
		276,700

Speckled Trout Fry Distributed from Normandale Hatchery.

Waters Stocked.	County.	Quantity.
Millgrove Creek	Wentworth	2,000
Grindstone Creek	do	3,000
Dorchester Dam	Middlesex	5,000
		10,000

Salmon Trout Fry Distributed from Port Arthur Hatchery.

Waters Stocked.	County.	Quantity.
Lake Nipigon	Thunder Bay	734,000
Lake Shebandawan	do	200,000
Long Lake	do	200,000
		1,134,000

Salmon Trout Fry Distributed from Thurlow Hatchery.

Waters Stocked.	County.	Quantity.
Gould Lake	Frontenac	30,000
Charlton Lake	Leeds	60,000
Horseshoe Lake	Hastings	20,000
Eagle Lake	do	30,000
Rideau Lake	Leeds	60,000
		200,000

Pickereel Fry Distributed from Port Carling Hatchery.

Waters Stocked.	County.	Quantity.
Severn River	Muskoka	200,000
McKaye Lake	do	200,000
Nipissing Lake	Nipissing	500,000
Trout Lake	Algoma	200,000
Sparrow Lake	Muskoka	500,000
Lake Rosseau	do	1,000,000
Lake Joseph	do	1,000,000
Lake Muskoka	do	1,150,000
Gull Lake	do	50,000
Silver Lake	do	50,000
		4,850,000

Pickereel Fry Distributed from Fort Frances Hatchery.

Waters Stocked.	County.	Quantity.
Moses Bay	Rainy River	6,560,000
Stangiomain Bay	do	6,020,000
Cascade Falls	do	4,620,000
Inlet Bay	do	4,130,000
Porter's Inlet	do	3,120,000
Big Canoe River	do	1,730,000
		26,180,000

Pickereel Fry Distributed from Thurlow Hatchery.

Waters Stocked.	County.	Quantity.
Eagle Lake	Hastings	150,000
Loughboro Lake	Leeds	150,000
Charleston Lake	do	150,000
		450,000

Whitefish Fry Distributed from Port Arthur Hatchery.

Waters Stocked.	County.	Quantity.
Lake Nipigon	Thunder Bay	8,943,000
Lake Wabigoon	Kenora	500,000
Long Lake	Thunder Bay	500,000
Lake Shebandawan	do	500,000
Lake Kashabowie	do	500,000
Whitefish Lake	do	500,000
Little Long Lake	do	500,000
		11,943,000

Whitefish Fry Distributed from Normandale Hatchery.

Waters Stocked.	County.	Quantity.
Lake Ontario	Wentworth (Hamilton Beach) ..	140,000
Lake Ontario	do	140,000
Lake Erie	Vicinity Long Point and Nor- mandale	31,112,000
		31,392,000

Herring Fry Distributed from Normandale Hatchery.

Waters Stocked.	County.	Quantity.
Lake Erie	Vicinity Long Point and Nor- mandale	920,000
Total distribution		77,783,360

1920

Bass Fingerlings	427,200
Parent Bass	460
Speckled Trout Mount Pleasant Hatchery	276,700
Normandale Hatchery	10,000
	286,700
Salmon Trout Port Arthur Hatchery	1,134,000
Thurlow Hatchery	200,000
	1,334,000
Pickereel Port Carling Hatchery	4,850,000
Fort Frances Hatchery	26,180,000
Thurlow Hatchery	450,000
	31,480,000
Whitefish Port Arthur Hatchery	11,943,000
Normandale Hatchery	31,392,000
	43,335,000
Herring Normandale Hatchery	920,000
	77,783,360

COMPARATIVE STATEMENT OF DISTRIBUTION.

	1919	1920
Black Bass Fingerlings	200,500	427,200
Parent Black Bass	548	460
Speckled Trout	20,600	286,700
Salmon Trout	1,050,100	1,334,000
Pickereel Fry	2,550,000	31,480,000
Whitefish Fry	7,740,000	43,335,000
Herring Fry	10,800,000	920,000
	22,361,748	77,783,360

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1919, in the Public

Districts.	Fishing material.											
	Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
<i>Kenora and Rainy River.</i>			\$			\$			\$			\$
1 Lake of the Woods.....	1	12	2,000	3	38	14,975	66	35	1,457	24	50,100	10,284
2 Eagle, Shoal, Stormy, Manitou and Sturgeon Lakes.....	1	9	1,200	2	13	5,550	21	5	170	2	19,750	3,825
3 Rowan, Indian, Deception, Feegan and Big Sandy Lakes.....					2	850	3	3	208	2	7,500	1,750
4 Scotch, Obabicon, Whitefish, Dogtooth, Bear and Wabigoon Lakes.....	1	5	500	2	4	1,472	5	4	110	6	10,800	1,940
5 Minnetakie, Sandy, Otter, Star, Clay and Kawagama Lakes.....					2	750	3	3	250	4	9,300	1,500
6 Big Vermillion, Lac Seul, Rock, Pelican and Lake of Bays Lakes.....					1	250	2	5	450	6	5,450	628
7 Rainy Lake.....	1	4	500	3	26	11,450	49	23	1,070	20	36,964	6,399
8 Six Mile, Sanford, Jackfish, Tuttle and Mainville Lakes.....					1	600	1	3	175	10	6,000	1,290
9 Loon, Kairskons, Big Saw Mill, and Pipestone Lakes.....								3	125	7	6,500	975
10 Sand Point, Namican, Trout, Clearwater and White Otter Lakes.....					2	900	5	4	350	13	12,500	2,425
Totals.....	4	30 1/2	4,200	10	89	36,797	155	88	4,365	94	164,864	30,816

Return of the kinds, quantities and values of fish caught during the

Districts.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
<i>Kenora and Rainy River.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Lake of the Woods.....				178,164		14,855	317,353	394,031
2 Eagle, Shoal, Stormy, Manitou and Sturgeon Lakes.....				141,335		18,461	28,433	105,464
3 Rowan, Indian, Feegan, Deception and Big Sandy Lakes.....				20,890		10,000	450	21,345
4 Scotch, Obabicon, Whitefish, Dogtooth, Bear and Wabigoon Lakes.....			1,100	21,544	50	1,435	11,590	19,498
5 Minnetakie, Sandy, Otter, Star, Clay and Kawagama Lakes.....				13,504		1,150	9,177	37,894
6 Big Vermillion, Lac Seul, Rock, Pelican and Lake of Bays Lakes.....				27,122		20,055	6,852	8,558
7 Rainy Lake.....				56,339		1,000	226,229	210,615
8 Six Mile, Sanford, Jackfish, Tuttle and Mainville Lakes.....				2,972		3,000	7,021	5,415
9 Loon, Kairskons, Big Saw Mill and Pipestone Lakes.....				9,737		5,456	6,046	3,714
10 Sand Point, Namican, Trout, Clearwater and White Otter Lakes.....				25,376		15,395	12,203	30,495
Totals.....			1,100	496,483	50	90,807	635,404	837,049
Values.....		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
			110 00	49,648 30	5 00	9,080 70	31,770 20	83,704 90

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the fishing Waters of Kenora and Rainy River Districts.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....			32	13,000	39	2,920	.....						20	8,940	23	4,995
.....													9	2,025	10	1,650
.....													2	200	2	360
.....					6	400							4	720	4	505
.....													7	1,050	2	100
.....			31	10,560									5	850	3	175
.....					2	175							19	5,035	7	900
.....																
.....													1	15		
.....			7	3,500									1	150	1	50
.....			70	27,060	47	3,495							68	18,985	52	8,675

year 1919, in the Public Waters of Kenora and Rainy River Districts.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickered (blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
8,310	80,779	70,754	53,232	82,522	60	.....	.....	91,583 07
.....	5,148	.....	.....	300	.....	.....	.....	28,770 53
.....	2,950	.....	.....	.....	5,314 00
.....	540	6,000	.....	700	.....	.....	.....	5,482 60
.....	4,549	.....	.....	.....	.....	.....	.....	5,986 59
2,666	9,717	140,325	.....	.....	7,367	.....	.....	.....	6,210 78
200	900	.....	.....	145,219	189	.....	.....	53,621 39
.....	584	.....	.....	10,850	20	.....	.....	2,021 75
.....	4,664	.....	.....	.....	2,417 10
3,140	8,438	.....	.....	5,000	.....	.....	.....	8,619 83
14,316	9,717	241,263	76,754	53,232	259,972	269	.....	.....	210,227 64
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,717 92	777 36	14,475 78	6,140 32	2,129 28	10,398 88	269 00	.....	.....	210,227 64

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1919.

Districts.	Fishing Material.											
	Tugs.				Gasoline Launches			Sail or Row Boats.			Gill-Nets.	
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
Lake Superior.			\$			\$			\$			\$
1 Thunder Bay	7	212	24,200	95	4	2,050	10	13	2,600	20	265,500	25,170
2 Pigeon River to Sturgeon Point and Whitefish Lake.....					1	500	4	7	500	9	11,700	2,059
3 Black Bay and Point Magnet....	1	18	3,000	4	1	1,800	3	6	830	10	39,500	2,255
4 Evelyn, Lamb, Spar and Shaganash Islands.....					2	750	3	3	290	3	18,000	1,625
5 Rossport, Pays Platte Bay and Wilson Island.....	6	112	19,000	15	4	1,200	7	4	610	5	157,500	31,100
6 Jackfish, Port Coldwell, McKay and Twin Lakes.....					5	1,200	10	3	170	5	20,500	2,040
7 Kashabowie, Sturgeon, Heathcote, Shebandowan Head and Greenwater Lakes.....					3	850	5	4	225	5	8,000	1,600
8 Lake Nipigon.....	6	145	25,500	48	6	5,300	13	1	125	.....	75,500	11,480
9 Gros Cap, Goulais Bay and Wawa Lake.....					7	2,750	14	13	1,660	20	65,700	6,320
10 Batchawana Bay, Parisienne and Sandy Island.....	1	21	4,000	5	3	2,000	8	4	250	7	46,400	6,240
11 Gargantua and Mamainse Point.....	1	36	5,000	5	3	2,700	10	2	110	3	93,500	12,105
12 Michipicoten and Richardson's Harbour.....	3	103	19,000	26	4	2,500	11	.....	.....	.....	134,000	15,150
Totals	25	647	99,700	198	43	23,600	104	60	7,370	87	935,800	117,144

Return of the kinds, quantities and values of fish caught

Districts.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickrel, or Dore.
<i>Lake Superior.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Thunder Bay	480,600	1,488,610	2,250	86,667	1,883	255,225	4,615	14,500
2 Pigeon River to Sturgeon Point and Whitefish Lake.....	64,750	9,700	.....	32,136	500	16,210	160	1,490
3 Black Bay, and Point Magnet....			.....	52,949	355	13,330	5,056	62,582
4 Evelyn, Lamb, Spar and Shaganash Islands.....			.....	5,150	200	37,866	75	275
5 Rossport, Pays Platte Bay and Wilson Island.....			.....	34,500	500	350,015	200	1,000
6 Jackfish, Port Coldwell, McKay and Twin Lakes.....			.....	14,900	200	56,900	850	9,200
7 Kashabowie, Sturgeon, Heathcote, Shebandowan Head and Greenwater Lakes.....			600	46,065	.....	15,921	6,460	10,018
8 Lake Nipigon.....			.....	1,620,970	.....	617,900	1,080	30,035
9 Gros Cap, Goulais Bay, and Wawa Lake.....		9,172	.....	42,298	300	141,407	399	1,551
10 Batchawana Bay, Parisienne and Sandy Island.....		675	600	62,350	.....	87,450	56	2,474
11 Gargantau and Mamainse Point.....			.....	13,794	700	93,538	.....	6,908
12 Michipicoten and Richardson's Harbour.....			.....	17,920	140,000	274,460	29	933
Totals	545,350	1,508,157	3,450	2,029,699	144,638	1,960,222	18,980	140,966
Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
	27,267 50	75,407 85	345	202,969 90	14,463 80	196,022 20	949 00	14,096 60

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Superior.

Fishing Material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....			2	1,000	.....								5	12,300	4	1,100
.....			1	250	.....								1	50	3	1,000
.....			5	3,000	.....								2	900	3	300
.....														1	100
.....			10	4,000	.....								3	1,800	4	850
.....			3	975	.....								2	275	1	25
.....												1	25	.....
.....			10	2,500	10	350	.....								.....
.....			3	1,500	.....								2	320	2	700
.....			9	9,000	.....								3	2,000	2	1,500
.....												1	300	2	2,500
.....			12	8,000	.....								4	3,200	3	2,500
.....			55	30,225	10	250	.....						24	21,170	25	10,575

during the year 1919, in the Public Waters of Lake Superior.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare	Sturgeon bladders.	Pickarel (blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
.....						62,100	.....	.....	.....	137,227 75
.....						98	.....	.....	.....	8,768 02
81						58,757	.....	.....	.....	15,534 40
.....							.....	.....	.....	4,352 85
.....						718	.....	.....	.....	37,640 22
75						4,800	.....	.....	.....	8,363 50
.....						900	.....	.....	.....	7,645 80
17,595			440	400			140	.....	.....	229,219 90
3,037						206	12	.....	.....	19,421 23
156						575	.....	.....	.....	15,365 67
.....						21,643	.....	.....	.....	12,359 72
975						140,360	.....	.....	.....	49,064 16
21,919			840			290,217	152	.....	.....	545,963 21
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
2,630 28			50 40			11,008 68	152 00			545,963 21

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1919, in the

District.	Fishing material.											
	Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
	No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value
Lake Huron, North Channel.			\$		\$			\$				\$
1 Bruce Mines, St. Joseph's Island and Cedar Island					1	300	2	5	330	7	9,800	760
2 Thessalon					4	2,100	8	7	360	8	31,000	3,000
3 Mississauga River, Blind River, Algoma Mills and Spragge.	1	23	5,000	6	3	1,750	8	4	325	2	5,200	630
4 Spanish, Cutler, John's Island and Bay of Islands	3	55	11,900	11	6	3,500	10	13	635	11	20,500	2,460
5 Pakowkami, Laugon, Gordon, Echo and Chibleau Lakes								5	285	8	7,500	655
6 Long, Little Laloche, Dollar, Pecord and Crooked Lakes								6	320	6	6,500	650
7 Mississauga Straits, Cockburn and Duck Islands	5	166	40,000	28				1	50	2	215,000	20,300
8 Providence and South Bays, Fitzwilliam Island	3	79	14,000	17	2	1,200	8	4	245	6	166,270	13,786
9 Killarney, Squaw Island and Wekwemikong Bay	4	106	20,000	19	12	7,050	24	3	125	4	212,400	17,460
10 Manitowaning and Sheguindah Bays, Lake Manitou and Laloche Island					2	2,000	6	1	100	2	4,000	400
11 Little Current, Kagawong and Mindemoya	1	20	2,000	4	2	5,600	6	2	35	2	61,800	3,260
12 Gore Bay, Meldrum Bay and Berry Island	3	71	15,500	14				4	400	3	122,500	12,400
Totals	20	520	108,400	99	32	23,600	72	55	3,310	61	863,470	75,761

Return of the kinds, quantities and values of fish caught during

District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel, or Dore.
<i>Lake Huron, North Channel.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Bruce Mines, St. Joseph's Island and Cedar Island	40	550	248	8,358	200	8,058	6,905	3,235
2 Thessalon		1,275		43,820		38,747	15,958	2,704
3 Mississauga River, Blind River, Algoma Mills and Spragge.		1,094		32,202		20,650	3,106	18,687
4 Spanish, Cutler, John's Island and Bay of Islands	229	19,183		6,924	600	12,957	86,959	105,108
5 Pakowkami, Laugon, Gordon, Echo and Chibleau Lakes		2,200		1,260		1,670	4,260	490
6 Long, Little Laloche, Dollar, Pecord and Crooked Lakes		1,511		661		1,920	5,200	2,979
7 Mississauga Straits, Cockburn and Duck Islands				114,083	8,250	808,108	6	90
8 Providence and South Bays, Fitzwilliam Island			500	39,355	1,300	236,462	700	276
9 Killarney, Squaw Island and Wekwemikong Bay			100	437,798		371,806	19,768	21,048
10 Manitowaning and Sheguindah Bays, Lake Manitou and Laloche Island	2,600			8,019		8,175	10,736	23,287
11 Little Current, Kagawong and Mindemoya		2,693		37,443		9,555	5,276	46,800
12 Gore Bay, Meldrum Bay and Berry Island				69,413	200	77,500	1,765	700
Totals	2,869	28,506	848	799,336	10,550	1,595,608	160,639	225,404
Values	\$ c. 143 45	\$ c. 1425 30	\$ c. 84 80	\$ c. 79,933 60	\$ c. 1,055 00	\$ c. 159,560 80	\$ c. 8,031 95	\$ c. 22,540 40

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the Public Waters of Lake Huron, North Channel.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or roll nets.		Night lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
			2	600	2	60							3	325	1	100
			9	2,900									4	1,200		
			17	7,500	1	50							3	1,400	3	4,400
			33	11,450	3	150							10	2,500	6	4,200
					2	80							2	200		
													1	100		
			23	21,000									2	1,000	3	1,100
			8	8,000									2	1,000	2	1,000
			43	39,100									2	1,600	2	1,050
			9	3,400									1	500	1	350
			18	8,950									4	3,250	4	26,800
			13	6,000									2	1,500	3	3,000
			175	108,900	8	340							36	14,575	25	42,000

the year 1919, in the Public Waters of Lake Huron, North Channel.

Sturgeon.	Rela.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and Coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue).	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
129		950		200	130	7,425	2			2,796 33
204		4,870			100	34,983				11,206 55
1,823				24		66,898	50			10,310 50
4,159		1,824				168,180				25,249 65
		1,140				4,420				923 00
					600	11,666				1,382 19
130			14,202		30					93,922 32
			11,794			8,200				28,859 94
681		236		887	155	14,079	27			81,831 52
528						5,105				4,882 46
5,684		2,560				15,931	7			11,309 37
185						13,858				15,446 27
13,523		11,580	25,996	1,111	1,020	350,755	86			291,130 10
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,622 76		926 40	1,559 76	88 88	40 80	14,030 20	86 00			291,130 10

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1919

District.	Fishing material.											
	Tugs.				Gasoline Launches.			Sail or Row Boats			Gill-Nets.	
	No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
<i>Georgian Bay.</i>			\$			\$			\$			\$
1 Byng Inlet	2	52	11,000	8	3	5,200	8	6	330	13	63,800	12,895
2 Parry Sound	3	46	16,000	16	10	5,275	16	4	425	5	203,824	19,820
3 Waubaushehene								12	1,075	14	25,000	3,415
4 Penetanguishene					4	825	8	5	195	9	23,380	1,251
5 Collingwood	2	34	11,000	10	11	4,050	21	7	355	14	174,600	12,493
6 Meaford to Owen Sound Bay..	6	158	25,500	26	28	12,315	65	18	1,025	31	273,900	21,195
7 Colpoys Bay to Tobermory	3	53	9,200	14	17	14,425	37	12	985	19	150,600	13,972
Totals	16	343	72,700	74	73	42,090	155	64	4,390	105	915,194	85,041

Return of the kinds, quantities and values of fish caught

District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
<i>Georgian Bay.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Byng Inlet			7,950	160,091		51,980	3,888	54,909
2 Parry Sound		500		173,451	700	112,353	9,681	10,235
3 Waubaushehene	200	100		3,129		200	14,113	11,695
4 Penetanguishene	2,000	11,400	900	10,915	2,000	14,300	200	
5 Collingwood	300	33,450	400	25,620	1,300	126,126	400	
6 Meaford to Owen Sound Bay	2,500	2,900		844	12,800	335,293	36	
7 Colpoys Bay to Tobermory	600	12,520	400	16,958	9,500	258,165	23	
Totals	5,600	60,870	9,650	391,008	26,200	698,417	28,341	76,839
Value	\$ c. 280 00	\$ c. 3,043 50	\$ c. 965 00	\$ c. 39,100 80	\$ c. 2,630 00	\$ c. 89,841 70	\$ c. 1,417 05	\$ c. 7,683 90

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the fishing in the Public Waters of Georgian Bay.

Fishing material.													Other fixtures used in fishing.			
Seines.			Pound Nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....	.....	.....	12	12,600	.....	.....	.....	.....	.....	.....	.....	.....	1	2,000	1	1,000
.....	.....	.....	4	2,000	.....	.....	.....	.....	3,600	72	.....	.....	1	1,500	2	1,101
1	75	100	.....	.....	19	410	.....	.....	.....	.....	.....	.....	1	150	1	100
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	170	3	700
4	1,000	1,095	.....	.....	.....	.....	.....	.....	2,300	74	.....	.....	.....	.....	.....	.....
.....	.....	.....	.....	.....	.....	.....	.....	.....	8,500	1,465	.....	.....	6	825	4	451
.....	.....	.....	.....	.....	.....	.....	.....	.....	9,100	1,200	.....	.....	8	1,700	10	1,500
5	1,075	1,195	23	18,300	19	410	.....	.....	23,500	2,811	.....	.....	20	6,345	21	4,853

during the year 1919, in the Public Waters of Georgian Bay.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
1,057	.....	.....	.....	.....	73	16,500	.....	.....	.....	28,477 16
121	.....	41	.....	13	23	.....	.....	.....	.....	30,205 71
.....	.....	6,000	.....	4,875	13,295	45,232	.....	.....	200	5,443 13
.....	.....	.....	300	.....	.....	.....	.....	.....	.....	3,509 50
600	.....	.....	.....	.....	40,600	5,500	.....	.....	.....	18,968 10
.....	50	35	7,050	60	.....	143	.....	.....	.....	35,606 82
.....	.....	.....	46,434	.....	525	13,902	.....	.....	.....	32,522 57
1,778	50	6,076	53,784	4,948	54,516	81,277	.....	.....	200	154,732 99
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
213 36	5 00	486 08	3,227 04	395 84	2,180 64	3,251 08	.....	.....	12 00	154,732 99

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1919.

District.	Fishing material.											
	Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
	No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
<i>Lake Huron (Proper).</i>			\$			\$			\$			\$
1 Tobermory to Southampton	9	210	36,500	47	14	8,200	34	12	2,165	22	460,300	32,995
2 Southampton to Pine Point	1	17	5,000	6	3	4,000	12	2	100	4	91,000	10,875
3 County of Huron					17	7,040	32				96,500	8,725
4 County of Lambton (including River St. Clair)					27	9,730	45	21	845	23		
Totals	10	227	41,500	53	61	28,970	123	35	3,110	49	647,800	52,595

Returns of the kinds, quantities and values of fish caught

District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickered, or Dore.
<i>Lake Huron (Proper).</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Tobermory to Southampton	8,000	42,800	6,800	28,161	48,200	581,144	1,958	2,202
2 Southampton to Pine Point		650		200	1,200	141,599		300
3 County of Huron		12,952		9,640	2,150	90,127	100	18,704
4 County of Lambton (including River St. Clair)		86,615		52,618		14,852	1,975	161,356
Totals	8,000	143,017	6,800	90,619	51,550	827,722	3,333	182,562
Values	\$ c. 400 00	\$ c. 7,150 85	\$ c. 680 00	\$ c. 9,061 90	\$ c. 5,155 00	\$ c. 82,772 20	\$ c. 166 65	\$ c. 18,256 20

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Huron (Proper).

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....			2	500	.....		.....		3,900	325	.....		7	2,730	2	500
.....			10	4,500	.....		.....		.....		.....		2	700	.....
.....					.....		.....		.....		.....		9	1,100	.....
5	295	350	52	29,200	.....		4	49	1,000	150	.....		4	1,825	.....
5	295	350	64	34,200	.....		4	49	4,900	475	.....		22	6,355	2	500

during the year 1919, in the Public Waters of Lake Huron (Proper).

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders.	Pickarel (blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
51	.....	4,423	148,618	.....	200	19,698	.....	.....	.....	79,361 56
1,308	.....	56,476	11,437	.....	.....	29,756	40	.....	.....	15,048 62
9,735	25	6,570	.....	383	6,710	55,860	983	.....	550	32,522 84
11,084	25	67,469	170,165	383	6,910	105,314	1,023	.....	550	146,159 60
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,331 28	2 50	5,397 52	10,209 90	30 64	276 40	4,212 56	1,023 00	.....	33 00	146,159 60

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1919

District.	Fishing material.											
	Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
	No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
Lake St. Clair.												
1 Kent County (including River Thames).....			\$		40	15,100	73	60	4,233	125		\$
2 Essex County.....					30	6,325	54	50	2,030	66		
3 Detroit River.....					5	1,850	15	26	800	47		
Totals.....					75	23,275	142	136	7,063	238		

Return of the kinds, quantities and values of fish caught

District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
<i>Lake St. Clair.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Kent County (including River Thames).....							29,570	26,194
2 Essex County.....				10,300			3,075	22,700
3 Detroit River.....				3,000			5,590	1,425
Totals.....				13,300			38,235	60,319
Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
				1,330 00			1,911 75	6,031 90

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake St. Clair, etc.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
37	6,800	5,981	.....	.....	105	11,850	.....	.....	2,600	23	.....	.....	29	9,925	11	2,200
20	5,400	3,300	7	2,900	87	8,500	.....	.....	3,200	395	.....	.....	9	3,840	.....	.....
25	4,023	2,535	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
82	16,223	11,816	7	2,900	192	20,350	.....	.....	5,800	418	.....	.....	38	13,765	11	2,290

during the year 1919, in the Public Waters of Lake St. Clair, etc.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon bladders	Pickarel (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
.....	87,787	.....	42,935	160,720	279,512	.....	.....	.....	32,164 94
10,800	50,350	.....	30,200	75,100	252,000	478	.....	.....	25,755 75
.....	2,010	.....	670	58,620	5,750	.....	.....	500	3,541 20
10,800	140,147	.....	73,805	294,440	537,262	478	.....	500	61,461 89
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,296 00	11,211 76	.....	5,804 40	11,777 60	21,490 48	478 00	.....	30 00	61,461 89

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the fishing industry during the year 1919.

District.	Fishing material.										
	Tugs			Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
	No.	Ton- nage.	Value	Men.	No.	Value	Men.	No.	Value.	Men.	Yards. Value.
<i>Lake Erie.</i>			\$			\$			\$		\$
1 Pelee Island.....	3	119	39,000	18	10	6,200	30	21	910	21	66,300 11,465
2 Essex County.....					41	38,150	88	22	1,095	8	7,000 1,750
3 Kent County, West.....	2	52	17,000	14	37	26,700	76	16	1,770	2	117,920 15,000
4 Kent County, East.....					19	13,850	69	15	1,235	12	8,500 2,000
5 Elgin County, West.....	2	69	25,000	13	18	11,025	64	17	1,285	10	158,300 6,885
6 Elgin County, East.....	20	555	141,565	126	7	5,250	25				538,000 89,540
7 Norfolk County.....	11	298	74,500	68	17	11,350	51	51	2,605	125	235,000 42,870
8 Haldimand County (to and in- cluding the Grand River)....	8	164	36,800	36	20	12,750	49	29	1,005	15	136,800 20,970
9 Port Maitland to Port Colborne.....					1	300	4	1	25	2	3,000 400
10 Port Colborne to Niagara Falls.....									510	12	2,100 350
Totals.....	46	1,257	332,865	275	170	126,575	456	184	10,440	207	1,273,920 192,130

Return of the kinds, quantities and values of fish caught

District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel, or Dore.
<i>Lake Erie.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Pelee Island.....		122,024		127,973				12,250
2 Essex County.....		91,815		207,017			1,638	41,586
3 Kent County, West.....		572,121		207,324				19,172
4 Kent County, East.....		275,927		36,723			657,486	18,014
5 Elgin County, West.....		546,779		38,832			426	12,719
6 Elgin County, East.....		2,171,752		130,762			20,576	32,180
7 Norfolk County.....		2,108,748		142,418		778	42,732	4,128
8 Haldimand County (to and in- cluding the Grand River)....		1,513,677		199,922		750	583	3,931
9 Port Maitland to Port Colborne.....		22,870		3,309			25	342
10 Port Colborne to Niagara Falls.....							3,570	
Totals.....		7,425,713		1,094,280		1,528	727,037	144,323
Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		371,285 65		109,428 00		152 80	36,351 85	14,432 30

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake Erie.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
3	1,200	500	30	16,400									5	6,400	2	400
6	1,030	844	184	159,900	3	50			30	0	10		25	23,400	9	1,295
2	150	300	138	111,750									31	62,500	13	6,150
6	2,400	1,200	104	78,100									22	34,200	14	5,850
			94	72,700									24	12,200	11	14,050
			43	32,900			6	48	400	12			11	12,100	9	3,750
33	13,480	7,685	50	24,300	23	570							15	12,300	13	6,400
9	1,280	895	62	33,400			14	120					9	4,200	1	800
			6	2,000									2	250		
2	100	120							3,700	90						
6i	19,640	11,544	711	532,050	28	620	20	168	4,400	112			144	167,550	72	38,695

during the year 1919, in the Public Waters of Lake Erie.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue).	Value.
lbs..	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.		\$ c.
7,919		136,987		2,049	20,438	80,536	536	4	22,952	38,150 34
9,831		94,890		4,924	55,374	282,056	269		437,291	78,701 45
1,624		147,911		95	11,776	82,017	51		879,847	119,887 85
1,019		159,802		253	7,380	44,114	324			67,163 04
1,024		120,825		2,188	367	27,856	16		486,967	72,842 21
809		215,290		6,581	509	17,392	87		238,100	158,846 40
4,389		156,021	1,308	17,686	182,119	130,748	319		128,948	157,378 73
14,042		59,654	15	196	96,445	14,112	408		175,985	121,316 62
2,052		3,405			182	13,948	109		12,547	3,455 51
		2,150			1,800	20,799			5,150	1,563 46
42,709		1,096,935	1,323	33,972	378,380	793,658	1,827 1/2	4	2,387,787	819,305 61
\$ c.		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
5,125 08		87,754 80	79 38	2,717 76	15,135 20	21,746 32	1,827 25	2 00	143,967 92	819,305 61

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1919,

District.	Fishing material.											
	Tugs.				Gasoline Launches			Sail or Row Boats			Gill-Nets.	
	No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value	Men.	Yards.	Value.
Lake Ontario.												
1 Lincoln County.....	1	29	\$ 5,000	3	20	\$ 9,675	36	12	\$ 615	19	101,120	\$ 9,185
2 Welland County.....	.....	.....	.....	.....	7	4,450	14	7	20	2	.....	.....
3 Wentworth County.....	.....	.....	.....	.....	6	975	12	15	5,705	30	99,000	6,520
4 Halton County.....	.....	.....	.....	.....	7	2,850	13	6	480	8	35,500	3,290
5 Peel County.....	.....	.....	.....	.....	3	1,100	3	1	30	2	10,000	1,200
6 York County.....	.....	.....	.....	.....	7	2,850	13	6	480	8	35,500	3,290
7 Ontario County.....	.....	.....	.....	.....	9	2,950	18	2	175	4	33,650	2,870
8 Durham County.....	1	21	4,000	4	4	2,500	9	1	50	2	60,000	8,305
9 Northumberland County.....	.....	.....	.....	.....	14	5,100	29	30	1,520	47	81,460	7,455
10 Prince Edward County.....	.....	.....	.....	.....	65	21,000	119	142	5,785	228	419,120	30,776
11 Bay of Quinte (Proper).....	.....	.....	.....	.....	11	1,625	10	156	15,552	276	108,350	15,460
12 Bay of Quinte (Eastern Channel).....	.....	.....	.....	.....	12	2,925	22	38	1,465	46	92,400	6,296
13 Wolfe Island and Vicinity.....	.....	.....	.....	.....	14	3,725	23	39	1,625	60	36,500	3,265
Totals.....	2	50	9,000	7	172	58,875	309	450	33,522	728	1,139,100	101,122

Return of the kinds, quantities and values of fish caught

District.	Herring, salted.	Herring, fresh.	Whitefish salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
<i>Lake Ontario.</i>								
1 Lincoln County.....	lbs. 106,238	.....	lbs. 64,220	.....	lbs. 349	.....	lbs. 89	lbs. 18,188
2 Welland County.....	.....	46,100	.....	46,400	.....	5,850	.....	16
3 Wentworth County.....	.....	122,000	.....	50,500	.....	33,700	.....	200
4 Halton County.....	7,400	9,000	.....	1,400	.....	16,500	.....	.....
5 Peel County.....	.....	5,600	.....	31,525	.....	6,005	.....	.....
6 York County.....	.....	2,716	.....	110,667	.....	2,885	287	.....
7 Ontario County.....	.....	3,425	150	84,177	.....	5,401	.....	.....
8 Durham County.....	2,130	51,140	.....	108,700	.....	53,400	36,990	.....
9 Northumberland County.....	1,150	287,942	1,275	632,516	.....	343,620	49,871	83
10 Prince Edward County.....	.....	1,045,336	5,200	319,501	.....	130	135,270	19,517
11 Bay of Quinte (Proper).....	100	26,015	.....	118,398	200	53,563	4,727	1,986
12 Bay of Quinte (Eastern Channel).....	150	3,900	600	20,319	700	31,800	25,861	469
13 Wolfe Island and Vicinity.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals.....	10,930	1,709,412	7,225	1,586,333	900	553,203	246,095	40,459
Values.....	\$ c. 546 50	\$ c. 85,470 60	\$ c. 722 50	\$ c. 158,633 30	\$ c. 90 00	\$ c. 55,320 30	\$ c. 12,304 75	\$ c. 4,045 90

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Ontario.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
7	533	750														
1	90	150					2	15 00								
									400	16 00	102	306	104	2,553		
1	20	30											21	1,955		
3	505	200											1	300		
1	135	175														
					1	20							5	325		
					51	1,755							1	100		
					173	5,675							7	360	2	75
2	350	90			173	5,675			5,075	244 00			31	3,815	1	150
					372	12,775			2,600	26 00			1	500	11	580
1	7	10			13	375			3,675	176 00					1	10
6	95	199			109	3,720			1,700	44 00			6	900	6	1,000
22	1,735	1,604			719	24,320	2	15 00	13,450	506 00	102	306	†177	10,808	21	1,315

† 102 spearing houses, value \$1,053.

luring the year 1919, in the Public Waters of Lake Ontario.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Oviare.	Sturgeon Bladders.	Pickarel (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.		\$ c.
	874	700		300	16,400	16,615			2,692	15,238 12
					1,487	45				67 33
	25	2,860			50	33,770				9,134 10
	775				500	10,000				15,387 50
						400				2,256 00
		100			10,500	8,650				4,807 00
		24		77	2,392	862				11,643 55
					20,930	86,959				9,981 25
	14,055	5,980		38,496	3,400	128,145				29,088 94
	34,100	15,102		51,400	118,756	239,006	203			133,155 75
	73,624	110,196		122,712	9,530	18,100				129,397 98
	13,772	800		1,580	860	39,532				21,282 80
	29,961	23,110		33,275	5,846					16,206 37
	167,186	158,802		247,840	169,471	603,014	202		2,692	317,646 73
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
	16,718 60	12,704 16		19,897 20	3,778 84	24,120 56	202 00		161 52	397,646 73

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1919.

District.	Fishing material.										
	Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill Nets.
	No.	Tonnage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards. Value.
<i>Inland Waters.</i>											
1 Frontenac County			\$	7	\$	1,475	8	26	\$	615	28 \$ c.
2 Lanark and Leeds Counties.				8		1,150	12	69		5,155	93
3 Grenville, Dundas, Stormont and Glengarry Counties				3		550	4	24		431	30
4 Prescott, Russell, Carleton and Renfrew Counties				7		2,300	10	26		479	28 1,900 270
5 Peterboro and Victoria Counties.				4		1,395	8	5		165	5
6 Lake Simcoe				4		3,400	9	35		1,250	45
7 Lake Nipissing				7		3,500	15				
8 Timiskaming and Nipissing Dis- tricts				13		7,150	33	28		2,125	27 19,200 3,480
Totals				53		20,920	99	213		10,220	256 21,100 3,750

Return of the kinds, quantities and values of fish caught

District.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickarel or Dore.
<i>Inland Waters.</i>								
1 Frontenac County	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
2 Lanark and Leeds Counties.							6,799	
3 Grenville, Dundas, Stormont and Glengarry Counties							17,147	
4 Prescott, Russell, Carleton and Renfrew Counties				1,000			425	
5 Peterboro and Victoria Counties.							2,875	965
6 Lake Simcoe		3,920		10,210		8,865		2,104
7 Lake Nipissing		60,248		55,896			27,760	128,322
8 Timiskaming and Nipissing Dis- tricts		10,888	843	27,224	500	3,470	81,682	62,688
Totals		75,056	843	94,330	500	12,335	136,689	214,079
Values	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		3,752 80	84 30	9,433 00	50 00	1,233 50	6,834 45	21,407 90

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Inland Waters.

Fishing material.													Other fixtures used in fishing.			
Seines.			Pound nets.		Hoop nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards.	Value.	No.	Value.	No.	Value.	No.	Value.	No. Hooks.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
3	50	60	.....	81	2,570	.....	2	10	2,400	190	.....	2	450	.....	
4	100	210	.....	205	5,630	.....					.....	4	335	.....	
1	12	10	.....	15	530	.....	4	10	6,150	163	.....			.....
			.....	45	883	.....			1,900	64	.....	4	140	.....	1	10
1	400	500	.....	3	35	.....	3	32	.....	.....	.....			.....
6	2,150	2,650	.....	5	100	.....	1	6	6,500	188	97	363				
			14	7,300	.....				.....	.....	.....	6	2,600	.....	5	900
			25	6,100	42	1,125	.....		.....	.....	.....	12	4,850	17	1,700	
15	2,712	3,430	39	13,400	396	10,873	10	58	16,950	605	97	363	28	8,375	23	2,610

during the year 1919, in the Public Waters of Inland Waters.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Carp.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickeral (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
3,477	3,377	1,800		36,409		24,379				3,909 53
	9,474	13,840		58,891	2,480	102,841				12,247 71
6,950	4,225	1,375		7,500	900	11,685	46			2,537 15
660	2,550	6,690		21,727	650	36,495				4,433 61
	440	600		1,030	30,100	4,990				1,178 00
97,432		6,774			169,950	16,613				10,318 34
						20,365	2,974			38,302 64
	776	2,607	11,564	600		118,911				21,885 49
108,519	20,842	33,686	11,564	116,087	194,080	336,279	3,020			94,812 47
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
3,022 28	2,084 20	2,694 88	693 84	9,286 96	7,763 20	13,451 16	3,020 00			94,812 47

ONTARIO

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats industry during

Districts.	Fishing material.											
	Tugs.				Gasoline Launches.			Sail or Row Boats.			Gill-Nets.	
	No.	Ton- nage.	Value.	Men.	No.	Value.	Men.	No.	Value.	Men.	Yards.	Value.
			\$			\$			\$			\$
1 Kenora & Rainy River Dists.	4	30½	4,200	10	89	36,797	155	88	4,365	94	164,864	30,81
2 Lake Superior.....	25	647	99,700	198	43	23,600	104	60	7,370	87	935,800	117,14
3 Lake Huron (North Channel)	20	520	108,400	99	32	23,600	72	55	3,310	61	862,470	75,76
4 Georgian Bay.....	16	343	72,700	74	73	42,090	155	64	4,390	105	915,101	85,04
5 Lake Huron (Proper).....	10	227	41,500	53	61	28,970	123	35	3,110	49	647,800	52,59
6 Lake St. Clair, etc.....	.....	.....	.....	.....	75	23,275	142	136	7,063	238	.....	.....
7 Lake Erie.....	46	1,257	333,865	275	170	126,575	456	184	10,440	207	1,273,920	192,13
8 Lake Ontario.....	2	50	9,000	7	172	58,875	309	450	33,522	728	1,139,100	101,12
9 Inland Waters.....	.....	.....	.....	.....	53	20,920	99	213	10,220	256	21,100	3,75
Totals.....	123	3,074½	669,365	716	768	384,702	1,615	1285	83,790	1,825	5,960,158	658,35

Recapitulation of the kinds, quantities and values

Districts.	Herring, salted.	Herring, fresh.	Whitefish, salted.	Whitefish, fresh.	Trout, salted.	Trout, fresh.	Pike.	Pickrel or Dore.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Kenora and Rainy River Districts	.....	.....	1,100	496,483	50	90,807	635,404	837,04
2 Lake Superior.....	545,350	1,508,157	3,450	2,029,699	144,638	1,960,222	18,980	140,16
3 Lake Huron (North Channel)....	2,869	28,506	848	799,336	10,550	1,595,608	160,639	225,40
4 Georgian Bay.....	5,600	60,870	9,650	391,008	26,300	898,417	28,341	76,83
5 Lake Huron (Proper).....	8,000	143,017	6,800	90,619	51,550	827,722	3,333	182,56
6 Lake St. Clair, etc.....	.....	.....	.....	13,300	.....	.....	38,235	60,31
7 Lake Erie.....	.....	7,425,713	.....	1,094,280	.....	1,528	727,037	144,35
8 Lake Ontario.....	10,930	1,709,412	7,225	1,586,333	900	553,203	246,095	40,41
9 Inland Waters.....	.....	75,056	843	94,330	500	12,335	136,689	214,07
Totals.....	572,749	10,950,731	29,916	6,595,388	234,488	5,939,842	1,594,753	1,922,04
Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
	28,637 45	547 536 55	2,991 60	659,538 80	23,448 80	593,984 20	99,737 65	192,20

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the fishing the year 1919.

Fishing material.												Other fixtures used in fishing.				
Seines.			Pound Nets.		Hoop Nets.		Dip or Roll Nets.		Night Lines.		Spears.		Freezers and Ice Houses.		Piers and Wharves.	
No.	Yards	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.	No.	Value.
		\$		\$		\$		\$		\$		\$		\$		\$
.....			70	27,060	47	3,495	.....	.....	.....	.....	.....	.....	68	18,985	52	8,675
.....			55	30,225	10	350	.....	.....	.....	.....	.....	.....	24	21,170	25	10,575
.....			175	108,900	8	340	.....	.....	.....	.....	.....	.....	36	14,575	25	42,000
5	1,075	1,195	23	18,300	19	410	.....	.....	23,500	2,811	.....	.....	20	6,345	21	4,850
5	295	350	64	34,200	.....	.....	4	49	4,900	475	.....	.....	22	6,355	2	500
82	16,223	11,816	7	2,900	192	20,350	.....	.....	5,800	418	.....	.....	38	13,765	11	2,200
61	19,640	11,544	711	532,050	26	620	20	168	4,400	112	.....	.....	144	187,550	72	38,695
22	1,735	1,604	.....	.....	719	24,320	2	15	13,450	506	102	306	*177	10,808	21	1,815
15	2,712	3,430	39	13,400	396	10,873	10	58	16,950	605	97	363	28	8,375	23	2,610
190	41,680	29,939	1,144	767,035	1,417	60,758	36	290	69,000	4,927	199	669	557	267,928	252	111,920

* 102 spearing houses, value \$1,053.

of fish caught during the year 1919.

Sturgeon.	Eels.	Perch.	Tullibee.	Catfish.	Crab.	Mixed and coarse fish.	Caviare.	Sturgeon Bladders.	Pickarel (Blue)	Value.
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
14,316	.....	9,717	241,263	76,754	53,232	259,972	269	.....	.....	210,227 64
21,919	.....	.....	840	.....	.....	290,217	152	.....	.....	545,963 21
13,523	.....	11,580	25,996	1,111	1,020	350,755	86	.....	.....	291,150 10
1,778	50	6,076	53,784	4,948	54,516	81,277	.....	.....	200	154,732 99
11,094	25	67,469	170,165	383	6,910	105,314	1,023	.....	550	146,159 60
10,800	.....	140,147	.....	73,805	294,440	537,262	478	.....	500	61,461 89
42,709	.....	1,096,935	1,323	33,972	378,380	793,658	1,827 1/2	4	2,387,787	819,305 61
.....	167 86	158,802	.....	247,840	169,471	603,014	202	.....	2,692	397,646 75
108,519	20,842	33,686	11,564	116,087	194,080	336,279	3,020	.....	.....	94,812 47
224,658	188,103	1,524,412	504,935	554,900	1,152,049	3,357,748	7,057 1/2	4	2,391,729	2,721,440 24
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
26,958 96	18,810 30	121,952 96	30,296 10	44,392 00	46,081 96	134,309 92	7,057 25	2 00	143,503 74	2,721,440 24

Comparative Statement of yield for 1918-19, according to Districts.

	1918.	1919.	Increase.	Decrease.
Kenora and Rainy River Districts:				
Herring, Salted	lbs.			
Herring, Fresh	"			
Whitefish, Salted	"			
Whitefish, Fresh	"			
Trout, Salted	"			
Trout, Fresh	"			
Pike	"			
Pickereel (Dore)	"			
Sturgeon	"			
Eels	"			
Perch	"			
Tullibee	"			
Catfish	"			
Carp	"			
Mixed and Coarse Fish	"			
Caviare	"			
Pickereel (Blue)	"			
Lake Superior:				
Herring, Salted	lbs.			
Herring, Fresh	"			
Whitefish, Salted	"			
Whitefish, Fresh	"			
Trout, Salted	"			
Trout, Fresh	"			
Pike	"			
Pickereel (Dore)	"			
Sturgeon	"			
Eels	"			
Perch	"			
Tullibee	"			
Catfish	"			
Carp	"			
Mixed and Coarse Fish	"			
Caviare	"			
Lake Huron, (North Channel).				
Herring, Salted	lbs.			
Herring, Fresh	"			
Whitefish, Salted	"			
Whitefish, Fresh	"			
Trout, Salted	"			
Trout, Fresh	"			
Pike	"			
Pickereel (Dore)	"			
Sturgeon	"			
Eels	"			
Perch	"			
Tullibee	"			
Catfish	"			
Carp	"			
Mixed and Coarse Fish	"			
Caviare	"			
Georgian Bay:				
Herring, Salted	lbs.			
Herring, Fresh	"			
Whitefish, Salted	"			
Whitefish, Fresh	"			
Trout, Salted	"			

Comparative Statement of yield for 1918-19, according to Districts—Continued.

	1918.	1919.	Increase.	Decrease
Georgian Bay—Continued:				
Trout, Fresh	1,128,314	898,417		229,897
Pike	38,927	28,341		10,586
Pickereel (Dore)	66,655	76,839	10,184	
Sturgeon	2,612	1,778		834
Eels		50	50	
Perch	2,500	6,076	3,576	
Tullibee	75,759	53,784		21,975
Catfish	4,340	4,948	608	
Carp	5,123	54,516	49,393	
Mixed and Coarse Fish	28,980	81,277	52,297	
Caviare	1,170			1,170
Pickereel (Blue)		200	200	
Lake Huron (proper):				
Herring, Salted	13,900	8,000		5,900
Herring, Fresh	250,100	143,017		107,083
Whitefish, Salted	2,700	6,800	4,100	
Whitefish, Fresh	62,968	90,619	27,651	
Trout, Salted	43,354	51,550	8,196	
Trout, Fresh	732,331	827,722	95,391	
Pike	1,449	3,333	1,884	
Pickereel (Dore)	204,358	182,562		21,796
Sturgeon	18,783	11,094		7,689
Eels	4	25	21	
Perch	64,014	67,469	3,455	
Tullibee	231,858	170,165		61,693
Catfish	500	383		117
Carp	8,212	6,910		1,302
Mixed and Coarse Fish	144,021	105,314		38,707
Caviare	887½	1,023	135½	
Sturgeon Bladders	No. 49			49
Pickereel (Blue)	lbs.	550	550	
Lake St. Clair, etc.:				
Herring, Salted	lbs.			950
Herring, Fresh	950			
Whitefish, Salted				15,710
Whitefish, Fresh	29,010	13,300		
Trout, Salted				
Trout, Fresh				
Pike	62,030	38,235		23,795
Pickereel (Dore)	40,871	60,319	19,448	
Sturgeon	14,700	10,800		3,900
Eels				
Perch	147,481	140,147		7,334
Tullibee				
Catfish	62,593	73,805	11,212	
Carp	224,455	294,440	69,985	
Mixed and Coarse Fish	397,141	537,262	140,121	
Caviare	451	478	27	
Pickereel (Blue)	550	500		50
Lake Erie:				
Herring, Salted	lbs.			6,106,280
Herring, Fresh	13,531,993	7,425,713		
Whitefish, Salted				33,976
Whitefish, Fresh	1,128,256	1,094,280		
Trout, Salted				
Trout, Fresh	2,446	1,528		918
Pike	229,131	727,037	497,906	
Pickereel (Dore)	184,379	144,323		40,056

Comparative Statement of yield for 1918-19, according to Districts—Continued.

	1918.	1919.	Increase.	Decrease.
Lake Erie.—Continued:				
Sturgeon .....lbs....	51,928	42,709	.....	9,219
Eels .....“.....	.....	.....	.....	.....
Perch“.....	2,056,214	1,096,935	.....	959,279
Tullibee .....“.....	.....	1,323	1,323	.....
Catfish“.....	47,400	33,972	.....	13,428
Carp“.....	711,493	378,380	.....	333,113
Mixed and Coarse Fish“.....	766,522	793,658	27,136	.....
Caviare“.....	1,820	1,827 $\frac{1}{4}$	7 $\frac{1}{4}$	.....
Sturgeon Bladders .....No.....	12	4	.....	8
Pickere! (Blue) .....lbs....	784,953	2,387,787	1,602,834	.....
Lake Ontario:				
Herring, Salted .....lbs....	6,450	10,930	4,480	.....
Herring, Fresh“.....	1,795,052	1,709,412	.....	85,640
Whitefish, Salted“.....	63,000	7,225	.....	55,775
Whitefish, Fresh“.....	1,273,501	1,586,333	312,832	.....
Trout, Salted“.....	1,850	900	.....	950
Trout, Fresh“.....	385,601	553,203	167,602	.....
Pike“.....	212,800	246,095	33,295	.....
Pickere! (Dore)“.....	15,141	40,459	25,318	.....
Sturgeon“.....	1,600	.....	.....	1,600
Eels“.....	136,428	167,186	30,758	.....
Perch“.....	108,469	158,802	50,333	.....
Tullibee“.....	350	.....	.....	350
Catfish“.....	235,796	247,840	12,044	.....
Carp“.....	142,378	169,471	27,093	.....
Mixed and Coarse Fish“.....	709,806	603,014	.....	106,792
Caviare“.....	300	202	.....	98
Sturgeon Bladders .....No.....	2,000	.....	.....	2,000
Pickere! (Blue) .....lbs....	14,941	2,692	.....	12,249
Inland Waters:				
Herring, Salted .....lbs....	100	.....	.....	100
Herring, Fresh“.....	42,215	75,056	32,841	.....
Whitefish, Salted“.....	12,600	843	.....	11,757
Whitefish, Fresh“.....	88,419	94,330	5,911	.....
Trout, Salted“.....	30,000	500	.....	29,500
Trout, Fresh“.....	61,501	12,335	.....	49,166
Pike“.....	90,497	136,689	46,192	.....
Pickere! (Dore)“.....	153,667	214,079	60,412	.....
Sturgeon“.....	107,118	108,519	1,401	.....
Eels“.....	24,110	20,842	.....	3,268
Perch“.....	31,205	33,686	2,481	.....
Tullibee“.....	8,272	11,564	3,292	.....
Catfish“.....	112,354	116,087	3,733	.....
Carp“.....	103,130	194,080	90,950	.....
Mixed and Coarse Fish“.....	234,359	336,279	101,920	.....
Caviare“.....	3,723	3,020	.....	703

STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO FOR THE
YEAR 1919, AS FURNISHED BY THE FISHERMEN'S ANNUAL RETURNS.

Kinds of Fish.	Quantity.	Price.	Value.
		\$ c.	\$ c.
Herring, Salted .....lbs.....	572,749	5	28,637 45
Herring, Fresh "	10,950,731	5	547,536 55
Whitefish, Salted "	29,916	10	2,991 60
Whitefish, Fresh "	6,595,388	10	659,538 80
Trout, Salted "	234,488	10	23,448 80
Trout, Fresh "	5,939,842	10	593,984 20
Pike "	1,994,753	5	99,737 65
Pickereel (Dore) "	1,922,000	10	192,200 00
Sturgeon "	224,658	12	26,958 96
Eels "	188,103	10	18,810 30
Perch "	1,524,412	8	121,952 96
Tullibee "	504,935	6	30,296 10
Catfish "	554,900	8	44,392 00
Carp "	1,152,049	4	46,081 96
Mixed and Coarse Fish "	3,357,748	4	134,309 92
Caviare "	7,057½	1 00	7,057 25
Sturgeon Bladders No.....	4	50	2 00
Pickereel (Blue) .....lbs.....	2,391,729	6	143,503 74
Total			2,721,440 24

Quantities based on Fishermen's Annual Returns.

Prices based on figures furnished by the Dominion Bureau of Statistics.

COMPARATIVE STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE.

	1918	1919	Increase.	Decrease.
Herring, Salted .....lbs.....	331,550	572,749	241,199	.....
Herring, Fresh "	19,384,086	10,950,731	.....	8,433,355
Whitefish, Salted "	165,650	29,916	.....	135,734
Whitefish, Fresh "	5,827,513	6,595,388	767,875	.....
Trout, Salted "	613,154	234,488	.....	378,666
Trout, Fresh "	6,681,100	5,939,842	.....	741,258
Pike "	1,386,818	1,994,753	607,935	.....
Pickereel (Dore) "	1,720,335	1,922,000	201,665	.....
Sturgeon "	239,149	224,658	.....	14,491
Eels "	161,042	188,103	27,061	.....
Perch "	2,428,200	1,524,412	.....	903,788
Tullibee "	632,894	504,935	.....	127,959
Catfish "	670,507	554,900	.....	115,607
Carp "	*1,208,258	1,152,049	.....	56,209
Mixed and Coarse Fish "	3,729,323	3,357,748	.....	371,575
Caviare "	9,277½	7,057½	.....	2,220½
Sturgeon Bladders No.....	2,061	4	.....	2,057
Pickereel (Blue) .....lbs.....	813,259	2,391,729	1,578,470	.....
Total Pounds	46,002,115½	38,145,458½	.....	.....
Total Decrease, Pounds, 1919 .....	.....	.....	.....	7,856,657½

VALUE OF ONTARIO FISHERIES FROM 1901 TO 1919 INCLUSIVE

Years.	Value.		Years.	Value.	
	\$	c.		\$	c.
1901	1,428,078	00	1911	2,419,178	21
1902	1,265,705	00	1912	2,842,877	09
1903	1,535,144	00	1913	2,674,686	76
1904	1,793,524	00	1914	2,755,293	11
1905	1,708,963	00	1915	3,341,181	41
1906	1,734,865	00	1916	2,658,993	43
1907	1,935,024	90	1917	2,866,424	00
1908	2,100,078	63	1918	3,175,110	32
1909	2,237,544	41	1919	2,721,440	24
1910	2,348,269	57			

STATEMENT OF THE NUMBER AND VALUE OF THE TUGS, GASOLINE, SAIL OR ROW BOATS, NETS, SPEARS, ETC., USED IN THE FISHING INDUSTRY OF THE PROVINCE OF ONTARIO DURING THE YEAR 1919.

	Number.	Value.
		\$ c.
Tugs (3,074½ tons)	123	669,365
Gasoline Launches	768	384,702
Sail or Row Boats	1,285	83,790
Gill Nets	5,960,158 yards.	658,359
Seines (41,680 yards)	190	29,939
Pound Nets	1,144	767,035
Hoop Nets	1,417	60,758
Dip and Roll Nets	36	290
Baited Hooks	69,000	4,927
Spears	199	669
Freezers and Ice Houses	557	267,928
Piers and Wharves	252	111,920
Total		3,039,682

Number of men employed on Tugs	716
“ “ “ Gasoline Launches	1,615
“ “ “ Sail or Row Boats	1,825
	4,156

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Ass. Miller
Government
Publications

June 18, 1931

Fifteenth Annual Report

OF THE

GAME AND FISHERIES DEPARTMENT

1921

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

Printed by CLARKSON W. JAMES, Printer to the King's Most Excellent Majesty
1922

Fifteenth Annual Report

OF THE

GAME AND FISHERIES
DEPARTMENT

1921

PRINTED BY ORDER OF
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TORONTO:
Printed and Published by CLARKSON W. JAMES, Printer to the King's Most Excellent Majesty
1922

Printed by
THE RYERSON PRESS.



To His Honour HENRY COCKSHUTT, Esq.,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Fifteenth Annual Report of the Game and Fisheries Department of this Province.

I have the honour to be,

Your Honour's most obedient servant,

H. MILLS,

Minister of Mines.

Toronto, 1922

FIFTEENTH ANNUAL REPORT

OF THE

Game and Fisheries Department of Ontario

To the Honourable H. MILLS,

Minister of Mines.

SIR,—I have the honour to place before you the Fifteenth Annual Report of the work of the Game and Fisheries Department for the fiscal year ending the 31st day of October, 1921. The net revenue of the Department continues to increase and for the first time it will be shown that the net surplus in the Department proper exceeds the total expenditures by \$37,755.12, and the total net revenue for the year amounts to \$379,739.16, of which amount the Department proper contributed \$325,363.99, and the Sales Branch \$54,375.17. A statement of the Sales Branch operations is shown elsewhere in this report.

Comparative Statement of Revenue and Expenditure— 1916-1921, Inc. as shown in the Public Accounts.

	Revenue.	Expenditure.	Surplus.
1916.....	\$174,186 71	\$157,681 94	\$16,504 77
1917.....	219,442 94	154,055 17	65,387 77
1918.....	258,671 62	167,795 22	90,876 40
1919.....	346,197 14	185,247 72	160,949 42
1920.....	466,550 86	239,978 13	226,572 73
1921.....	612,972 86	287,608 87	325,363 99

SALES BRANCH.

1921.....	\$258,057 73	\$203,682 56	\$54,375 17
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STATISTICS

The different figures and statements presented herein furnishing statistics of the Department have been carefully prepared and provides very interesting and valuable information.

FISH.

The commercial fisheries of the Province are shown in comparison, as follows:—

	1919	1920	1921
Gill Nets licensed (yards).....	5,960,158	5,501,827	6,181,883
Seines ".....	190	168	180
Pound Nets ".....	1,144	1,080	1,052
Hoop Nets ".....	1,417	1,442	1,445
Dip and Roll Nets licensed.....	36	29	41
Spears ".....	199	122	116
Hooks ".....	69,000	64,330	78,663
Number of men employed.....	4,156	3,693	3,600
Number of Tugs.....	123	124	116
" Gasoline Boats ..	768	803	924
" Sail or Row Boats..	1,285	1,088	1,109
Estimated value of boats, ice houses, wharves and twine....	\$3,039,682 00	\$3,269,971 00	\$3,151,810 00
Aggregate Catch in Pounds....	38,145,458	38,501,533	36,444,372
Estimated value to fishermen...	\$2,721,440 24	\$2,691,093 74	\$2,656,775 82

ANGLING.

The fee for non-resident Angling permits was increased from \$2.00 to \$5.00 during the year, and from this source a substantial increase in revenue has been obtained, while the reports received from almost every district show that game fish are still plentiful and furnishes ample sport to both resident and non-resident alike.

HATCHERIES.

A large and modern Hatchery was built and equipped by the Department during the year at Sault Ste. Marie, and all necessary arrangements made to fill it to capacity with whitefish, salmon trout and speckled trout spawn to be hatched and delivered during the coming season. A Hatchery at this point will fill a long-felt need of the district, as it is in the centre of very valuable commercial fisheries and also very accessible to many waters that abound in game fish, but which would soon become depleted without the assistance of artificial propagation. The location of this hatchery also renders the collection of commercial and game fish spawn possible with a reasonable amount of energy and expense.

A detailed report of the output of the various provincial hatcheries will be shown elsewhere in this report, and the summary as compared with the previous year can be considered satisfactory, which is as follows:—

	1920	1921
Whitefish Fry.....	43,985,000	115,950,000
Pickereel ".....	31,030,000	27,625,000
Lake Trout ".....	1,134,000	110,400
Herring ".....	920,000	9,740,000
Speckled Trout Fingerlings and Fry.....	286,700	1,147,500
Black Bass Fingerlings.....	427,200	773,500
Parent Bass.....	460	742
	<hr/> 77,783,360	<hr/> 155,347,142

The demand for fry and fingerlings is greater than the present available supply, and the Department should extend this work as far as any reasonable expenditure will permit.

The total fry distributed yearly since 1912 is as follows:—

1912	150,000	1917	2,156,928
1913	173,815	1918	58,356,631
1914	598,630	1919	22,361,748
1915	1,697,425	1920	77,783,360
1916	1,570,450	1921	155,347,142

GAME SANCTUARIES.

At present only a few small areas are set aside by this Department, viz.,—

Miner Farm Sanctuary.
 Peasemarsch Farm Sanctuary.
 Nopiming Game Sanctuary.
 Eugenia Fish and Game Preserve.

The latter has only been recently established and only made possible to a large extent by the co-operation of the Hydro Electric Power Commission, who have given permission to use a large island exclusively for the rearing of water fowl

and other game birds and animals. The water on this Sanctuary will be protected and made attractive for water fowl of every specie while the collecting of speckled trout spawn at this point will prove beneficial when developed and distributed as fry to all suitable waters.

WILD CELERY AND WILD RICE.

During the year the Department caused a quantity of wild celery plants and wild rice seed to be placed in suitable waters in the districts of Muskoka, Parry Sound and other districts as far west as Rainy River and Kenora, and the results obtained have shown the success of the undertaking and worthy of further work of this nature, which is given every support by the many local fish and game associations. These plants reproduce and spread rapidly and will soon provide the needed food to attract water-fowl in the various districts.

GAME.

Moose and Deer.—In issuing resident moose and deer licenses for the year, a questionnaire was furnished with a view of ascertaining sportsmen's opinion on taking deer with dogs, and also as to open seasons. The results of this questionnaire by Counties or Districts were as follows:—

County or District	Favoring use of Dogs		Against use of Dogs		Totals	
	Local Hunters	non-local Hunters	Local Hunters	non-local Hunters	Favoring Dogs	Against Dogs
Addington.....	59	156	41	46	215	87
Algoma.....	337	163	722	140	500	862
Bruce.....	65	7	23	1	72	24
Carleton.....	113	24	37	1	137	38
Dundas.....	3				3	
Frontenac.....	318	139	108	34	457	142
Grenville.....	35	8	2		43	2
Haliburton.....	55	287	6	53	342	59
Hastings.....	554	320	251	59	874	310
Kenora.....	49		166		49	166
Lanark.....	205	49	104	4	254	108
Leeds.....	1			1	1	1
Manitoulin.....	12	45	62	19	57	81
Muskoka.....	317	419	77	164	736	241
Nipissing.....	229	655	305	278	884	583
Parry Sound.....	596	1,967	438	699	2,563	1,137
Peterboro.....	367	402	59	116	769	175
Rainy River.....	20	3	105	1	23	106
Renfrew.....	368	167	618	103	535	721
Russell and Prescott.....	26	2			28	
Sudbury.....	157	319	367	206	476	573
Timiskaming.....	55	31	61	38	86	99
Thunder Bay.....	38	7	329	6	45	335
Victoria.....	73	21	30	11	94	41
Unclassified.....		621		272	621	272

SUMMARY

	Local Hunters	Non-Local Hunters	Total
Favoring use of Dogs.....	4,052	5,812	9,864
Against use of Dogs.....	3,911	2,252	6,163
Number of local hunters questioned.....	7,963		
Number of non-local hunters questioned.....		8,064	

The questionnaire was not submitted to settlers who are entitled to one deer each season without a license.

Number of hunters voting in favor of the present open seasons for deer.....	12,762
Number of hunters voting against the present open seasons for deer.....	1,056
Majority for present open seasons.....	11,706

Both deer and moose are reported to be quite plentiful, and licenses were issued in comparison with the previous year as follows:—

	1920	1921
Resident Moose.....	1,988	1,989
“ Deer.....	16,943	18,689
Non-resident Hunting.....	796	950

Ruffed Grouse commonly known as *Partridge*.—An open season for these game birds was once more in effect, and they have again become quite well established according to reports received from the districts where they are usually found.

Quail and Pheasants are reported to a limited extent only in the south-western part of the province.

Ducks and Geese are reported as plentiful and the season for same has been a satisfactory one to the sportsmen.

FURS.

The Fur market for the year has been quite satisfactory, and while it has been unsteady at times, yet inflated values were not obtained as in the previous year.

	1920	1921
Licenses issued to Fur Dealers.....	\$34,850 27	\$55,007 00
“ “ Trappers.....	75,223 54	99,360 00

These increases in revenue can be considered as satisfactory particularly when the market was such as to offer no extreme profits to either trapper or dealer, as was obtained during the early part of the 1920 season.

Beaver.—Are still being taken in large numbers.

Otter, Marten and Fisher.—Continue to be scarce.

Muskrat.—Show a slight increase over the previous year.

A comparison of pelts exported and tanned for the year as compared with the previous year is shown herewith:—

	1920	1921
	Exported and Tanned	Exported and Tanned
Beaver.....	96,006	95,479
Otter.....	4,094	4,759
Fisher.....	4,069	2,602
Marten.....	6,315	6,533
Mink.....	33,695	42,667
Muskrat.....	434,066	479,866
Bear.....	409x	1,494
Fox (Cross).....	39x	287
“ (Red).....	231x	5,282
“ (Silver or Black).....	11x	153
“ (White).....	.....	351
“ (Not specified).....	240x	23
Lynx.....	170x	591
Raccoon.....	321x	11,951

Skunk	1,082x	47,121
Weasel.....	3,095x	58,898
Wolverine.....	.....	12
Total.....	583,843	758,069

The figures marked with x cover a period of only five months of the year 1920. The estimated value to the trapper based on an average of the prices paid for the year is \$3,268,967.50.

FUR FARMING.

During the year fur farming permits were issued to keep for propagation purposes, approximately the following number of fur-bearing animals:—

Beaver.....	2	Fox (Black).....	103
Fisher.....	3	Lynx.....	2
Fox (Cross).....	240	Mink.....	83
Fox (Red).....	132	Raccoon.....	37
Fox (Silver).....	593	Skunk	74

ENFORCEMENT OF ACT.

The re-organization of the outside service was in effect for the first complete year, and the results obtained were very satisfactory. With a continuation of the system now established, a better enforcement of the laws will be attained than under the system discontinued in the fall of 1920.

ACKNOWLEDGMENT.

In closing this report I desire to state that the Department has received willing co-operation in all matters from the Federal Government, Railway Officials and from the members of all Fish and Game Protective Associations seeking to establish better conditions and conservation of all game and fish. The staff has been loyal and efficient, and to them considerable credit is due for the continued success of the Department.

All statistics referred to will be found elsewhere in this report, together with many other statistics in detail.

All of which is respectfully submitted.

I am,

Your obedient servant,

(Sgd.) D. McDONALD,

Deputy Minister of Game and Fisheries

STATEMENT OF REVENUE RECEIVED BY DEPARTMENT OF GAME AND FISHERIES DURING
YEAR ENDING OCTOBER 31, 1921

GAME

Royalty on Furs.	\$ 71,907 88	
Royalty of Coupons.	108,268 87	
Trappers' Licenses.	56,947 40	
Non-Resident Hunting Licenses.	23,750 00	
Resident Deer Licenses.	56,067 00	
Resident Moose Licenses.	9,945 00	
Fur Dealers' Licenses.	55,295 00	
Tanners' Licenses.	395 00	
Game Dealers' Licenses.	645,00	
Hotel and Restaurant Licenses etc.	412 00	
Cold Storage Licenses.	185 00	
Guides' Licenses.	1,864 00	
Fines—Game.	18,125 44	
Sales—Game.	12,449 25	
		\$ 416,256 84

FISHERIES

Fishing Licenses.	128,850 00	
Royalty, Fish.	5,350 85	
Angling Permits.	56,565 00	
Fines—Fish.	1,776 59	
Sales—Fish.	2,523 79	
Miscellaneous.	1,649 79	
		\$ 196,716.02

GOVERNMENT FISH

Sales of Fish, etc.	258,057 73	\$ 258,057 73
Total.		\$ 871,030 59

D. McDonald, Esq.

Deputy Minister of Game and Fisheries,
Parliament Buildings.

Dear Sir:—

I have pleasure in handing you herewith a financial report of the Sales Branch for the fiscal year ending October 31st, 1921, by which you will note that there has been a surplus of cash received over expenditures amounting to \$54,375.17.

The total fish purchased for the year amounts to 2,055,706 lbs. as against 2,269,401 lbs. of the previous year, and the municipalities supplied during the past year being 85 with 237 dealers, against 94 municipalities with 214 dealers for the previous year.

All of which is respectfully submitted.

Yours truly,

(Sgd) Geo. H. Rapsey,
Superintendent.

SALES BRANCH

INCOME AND EXPENDITURE FOR YEAR ENDING OCTOBER 31st, 1921

INCOME

Cash, Paid Treasurer.....	\$ 258,057 73
---------------------------	---------------

EXPENDITURE

Paid Fishermen.....	\$ 111,961 56
Express, freight and cartage.....	39,341 92
Boxes and cases.....	10,501 79
St. Thomas Warehouse charges.....	122 36
Toronto Warehouse charges.....	20,321 16
Wages, Packing and Shipping, Macdiarmid.....	5,981 58
Salaries, Macdiarmid.....	2,100 00
Salaries, Toronto Offices.....	5,205 26
Commission,—Purchasing.....	875 54
Travelling Expenses.....	161 95
Sundry Expense, Macdiarmid.....	2,013 92
Sundry Expense, Toronto.....	72 35
Ice.....	1,894 20
Postage and Stationery.....	607 61
Buildings,—Docks, Warehouse etc., Macdiarmid.....	553 07
Equipment and supplies, Macdiarmid.....	619 61
Horses, Vehicle and Motor Boat Expense.....	1,063 62
Telephone & Telegraph.....	265 60
Miscellaneous Expense.....	19 46

Surplus Cash in Treasury over expenditure.....	\$ 203,682 56
	54,375 17

\$ 258,057 73

WATERS STOCKED

QUANTITIES AND KINDS OF FISH PLANTED IN 1921.

Black Bass Fry and Fingerlings.

Waters	County	Quantity
Kebequashing Lake.....	Algoma.....	5,000
Blue Lake.....	Brant.....	2,000
Purvis Lake.....	Bruce.....	10,000
Royal Milling Company's Pond.....	".....	10,000
Krug Brother's Pond.....	".....	10,000
Scone Pond.....	".....	10,000
Sharbot Lake.....	Frontenac.....	10,000
Chippego Lake.....	".....	10,000
Fish Lake.....	".....	10,000
Lake Mossonoga.....	".....	10,000
McCall Lake.....	Grey.....	2,500
McCormick Lake.....	".....	2,500
Cocklong Lake.....	Haliburton.....	20,000
Stoco Lake.....	Hastings.....	2,500
Crow Lake.....	".....	5,000
Oak Hill Lake.....	".....	5,000
Beaver Creek.....	".....	2,500
Deer River.....	".....	2,500
Moirs River.....	".....	2,500
Wolfe Lake.....	".....	2,500
Rat Portage Bay.....	Kenora.....	2,500
Black Lake.....	Lanark.....	10,000
Riven's Lake.....	".....	10,000
Charleston Lake.....	Leeds.....	10,000
Rideau Lakes.....	".....	10,000
South Lake.....	".....	10,000
Sixteen Mile Creek.....	Lincoln.....	3,500
Fifteen Mile Creek.....	".....	1,500
Thames River and Tributaries.....	Middlesex.....	10,000
Pond Mills.....	".....	10,000
Whittaker Lake.....	".....	10,000
Bear Creek.....	".....	5,000
".....	".....	2,500
Medway Creek.....	".....	10,000
Tobacco Lake.....	Manitoulin.....	2,000
Muskoka Lake.....	Muskoka.....	20,000
Lake Joseph.....	".....	20,000
Lake of Bays.....	".....	20,000
Mary Lake.....	".....	10,000
Lake Rosseau.....	".....	20,000
Sparrow Lake.....	".....	20,000
Clear Lake.....	".....	5,000
Clearwater Lake.....	".....	15,000
Green Lake.....	".....	10,000
Bella Lake.....	".....	10,000
Cacho Lake, Algonquin Park.....	Nipissing.....	50,000
Smoke Lake, " ".....	".....	25,000
Grand Lake, " ".....	".....	25,000
Lake Nipissing.....	".....	15,000
Otter Lake.....	".....	10,000
Four Mile Lake.....	".....	10,000
Trout Lake.....	".....	10,000
Lake Nosbingsing.....	".....	10,000
Presque Isle Bay.....	Northumberland.....	5,000
Cold Creek Mill Pond.....	".....	10,000
Harris Lake.....	Parry Sound.....	10,000
Meades Lake.....	".....	5,000
Whitefish Lake.....	".....	10,000
Mill Lake.....	".....	7,500
Roblins Lake.....	Prince Edward.....	5,000
Consecon Lake.....	".....	5,000
Indian River.....	Peterborough.....	10,000
Balsam Lake.....	".....	10,000
Pigeon Lake.....	".....	10,000
Buckhorn Lake.....	".....	10,000

WATERS STOCKED

QUANTITIES AND KINDS OF FISH PLANTED IN 1921.—*Continued.**Black Bass Fry and Fingerlings*

Waters	County	Quantity
Chemong Lake.....	Peterborough.....	5,000
Victoria Lake.....	Perth.....	10,000
Lake Dore.....	Renfrew.....	10,000
Little Lake.....	Simcoe.....	8,750
Lake Simple.....	".....	1,250
Clear Lake.....	Sudbury.....	2,500
Lovering Lake.....	".....	2,500
Crabb Lake.....	".....	2,500
Kaministiquia River.....	Thunder Bay.....	2,000
Grand River and Creek.....	Waterloo.....	10,000
Speed River.....	".....	20,000
Hamilton Bay.....	Wentworth.....	10,000
Sturgeon Lake.....	Victoria.....	10,000
Cameron Lake.....	".....	10,000
Lake Simcoe, Brough's Creek and Narrows at Atherly.....	York, Simcoe, and Ontario.....	25,000
Total.....		773,500

Parent Black Bass

Spruce Lake.....	Kenora.....	125
Rock Lake.....	".....	126
Guy Lake.....	".....	49
Bob Lake.....	".....	49
Flambeau Lake.....	".....	49
Pritchard Lake.....	Kenora.....	49
Boose Lake.....	".....	49
Lac des Mille Lacs.....	Thunder Bay.....	246
Total.....		742

Speckled Trout Fry and Fingerlings

Waters	County	Quantity
Long Lake.....	Algoma.....	10,000
Gorman's Spring Creek.....	Brant.....	2,000
Silver Creek.....	Bruce.....	10,000
Merchant's Creek.....	".....	5,000
Quigley Stream.....	".....	1,000
Vance Stream.....	".....	1,000
Gillespie Stream.....	".....	1,000
Gibson's Creek.....	".....	2,500
Spring Creek.....	".....	10,000
Cavan Creek.....	Durham.....	24,500
Canton Creek.....	".....	7,500
Tyrone Creek.....	".....	15,000
Wilmot's Creek.....	".....	10,000
Manver's Creeks.....	".....	7,500
Spring Creek.....	Elgin.....	10,000
Eagle Lake.....	Frontenac.....	10,000
Saugeen River.....	Grey.....	10,000
Rocky Saugeen.....	".....	2,000
Sydenham River, "Harrison's Park".....	".....	25,000
Holstein Mill Pond.....	".....	2,000
Riley's Creek.....	".....	2,500
Henderson's Creek.....	".....	10,000
Spring Creek, Chesley.....	".....	5,000
Tara Creek.....	".....	5,000
Little River.....	".....	10,000
Bothwell's Creek.....	".....	2,500
Big Creek.....	Huron.....	10,000
Eagle Lake.....	Haliburton.....	2,500
Drag Lake.....	".....	2,500

WATERS STOCKED
QUANTITIES AND KINDS OF FISH PLANTED IN 1921—*Continued.*

Speckled Trout Fry and Fingerlings

Waters	County	Quantity
Redstone Lake.....	"	5,000
Fairy Lake.....	Halton.....	20,000
Main Creek.....	"	5,000
Squire's Creek.....	Hastings.....	12,500
Rawdon Creek.....	"	7,500
Burk's Creek.....	"	5,000
Duncrief's Creek.....	Middlesex.....	10,000
Currie's Pond.....	"	10,000
River Wye.....	"	10,000
Bear Creek.....	"	5,000
Douty Creek.....	"	10,000
Artificial Lake draining into Thames River.....	"	5,000
Lake Wolsley Channel.....	Manitoulin.....	5,000
Stream from Ice Lake.....	"	5,000
Barr's Creek.....	"	2,000
Chalk Lake.....	Muskoka.....	5,000
Muskoka River.....	"	20,000
Skeleton Lake.....	"	5,000
Fry's Lake.....	"	10,000
Bass Lake.....	"	10,000
Waters in vicinity of Simcoe.....	Norfolk.....	10,000
Patterson's, Kent's, Crane and Cattle Creeks.....	"	23,000
Lynn Valley Creek.....	"	10,000
Beaupre's Creek.....	"	10,000
Deases Creek.....	"	3,000
Gleadall's Creek.....	"	4,000
Carpenter's Creek.....	"	1,000
Spooky Hollow Stream.....	"	1,000
Spring Valley Pond.....	Northumberland.....	10,000
Trout Creek.....	"	10,000
Barrett's Creek.....	"	1,500
Break-a-Way Creek.....	"	5,000
Little Cold Creek.....	"	5,000
Fourth Concession Creeks.....	"	10,000
Baltimore Creek.....	"	20,000
Brooklin Stream.....	"	10,000
Spring Creeks.....	Ontario.....	10,000
Cedar Creek and Ponds.....	Oxford.....	5,000
Dower Creek.....	"	5,000
Streams in East and West Oxford.....	"	5,000
Sucker Lake.....	Parry Sound.....	10,000
Forest Lake.....	"	5,000
Ouse and Pakenham Creeks.....	Peterborough.....	10,000
Deer Lake.....	"	10,000
Cold Creek.....	Peel.....	3,000
Spring Creek.....	Perth.....	2,000
Otter Creek.....	"	10,000
Eva Lake.....	Rainy River.....	10,000
French Lake.....	"	5,000
Coldwater River.....	Simcoe.....	10,000
McDonald's Creek.....	"	1,500
Sturgeon River.....	"	10,000
Lakes and Streams in Township of Hess.....	Sudbury.....	40,000
Spring Lake Creek.....	"	5,000
Hardwood Lake.....	"	15,000
McKenzie River.....	Thunder Bay.....	20,000
Lake Wideman.....	"	10,000
Gurney River.....	"	10,000
Lower Twin Lake.....	"	20,000
Upper Twin Lake.....	"	10,000
Loon Lake.....	"	10,000
Silver Lake.....	"	10,000
Pearl River.....	"	20,000
McIntyre Creek.....	"	10,000

WATERS STOCKED

QUANTITIES AND KINDS OF FISH PLANTED IN 1921—*Continued**Speckled Trout Fry and Fingerlings*

Waters	County	Quantity
Six Mile Creek.....	" "	25,000 ⁰
Three Mile Creek.....	" "	10,000
Corbett's Creek.....	" "	20,000
Slate River.....	" "	10,000
Pine River.....	" "	20,000
Currant River.....	" "	20,000
Cedar Creek.....	" "	10,000
Silver Islet Creek.....	" "	5,000
McVicar's Creek.....	" "	10,000
Seven Mile Creek.....	" "	5,000
Neebing River.....	" "	10,000
Sunshine Creek.....	" "	5,000
Oliver Lake.....	" "	15,000
Brulu Creek.....	" "	5,000
Steel River.....	" "	10,000
Nipigon River.....	" "	20,000
Indian Creek.....	Temiskaming.....	2,000
Mill's and Blair's Creeks and Dam.....	Waterloo and Wellington	25,000
Bickle's Creek.....	Waterloo.....	5,000
Bowman's Creek.....	"	10,000
Haysville Stream.....	"	10,000
Philipsburg Stream.....	"	10,000
Spring Creek and Pond.....	"	15,000
Krampean's Pond.....	"	10,000
McNally's Creek.....	"	5,000
Wilkes Creek.....	"	2,500
Millgrove Creek.....	Wentworth.....	10,000
Grindstone Creek.....	"	5,000
Beverley Creek.....	"	10,000
Little Saugeen.....	Wellington.....	10,000
Eden Mills.....	"	10,000
Total.....		1,147,500

Salmon Trout Fry and Fingerlings

Waters	County	Quantity
Lake Nipigon.....	Thunder Bay.....	110,400

Pickarel

Waters	County	Quantity
Lake Deschene.....	Carleton.....	100,000
Ottawa River.....	"	100,000
Rideau River.....	"	500,000
Seugog Lake.....	Durham.....	200,000
Sharbot Lake.....	Frontenac.....	100,000
Eagle Lake.....	"	100,000
Loborough Lake.....	"	200,000
Lake Mossonoga.....	"	100,000
Second Depot Lake.....	"	100,000
Mountain Lake.....	Grey.....	100,000
Lake Charles.....	"	500,000
Nation River.....	Grenville.....	100,000
Stoco Lake.....	Hastings.....	200,000
Crow Lake.....	"	100,000
Oak Hill Lake.....	"	100,000
Beaver Creek.....	"	50,000
Deer River.....	"	50,000
Moirs River.....	"	300,000
Wolfe Lake.....	"	100,000
Fraser Lake.....	"	100,000
Moirs Lake.....	"	300,000
Paudash Lake.....	"	100,000
Indian Creek.....	Lanark.....	100,000

WATERS STOCKED
QUANTITIES AND KINDS OF FISH PLANTED IN 1921—*Continued.*

Pickeral

Waters	County	Quantity
White Lake.....	Lanark.....	100,000
Otty Lake.....	".....	100,000
Christie Lake.....	".....	100,000
Clyde River.....	".....	200,000
Charleston Lake.....	Leeds.....	1,000,000
Rideau Lakes.....	Leeds and Lanark.....	700,000
Sand Lake.....	Leeds.....	100,000
Killenback Lake.....	".....	100,000
Higley Lake.....	".....	100,000
Mud Lake.....	".....	100,000
Lake Elida.....	".....	100,000
Thames River and tributaries.....	Middlesex.....	500,000
Aux Sauble River.....	".....	100,000
Muskoka Lake.....	Muskoka.....	900,000
Lake Joseph.....	".....	900,000
Lake of Bays.....	".....	500,000
Lake Rosseau.....	".....	900,000
Sparrow Lake.....	".....	500,000
Long Lake.....	".....	100,000
Log Lake.....	".....	100,000
Lake Nipissing.....	Nipissing.....	900,000
Lake Erie.....	Norfolk.....	11,025,000
Crow Bay.....	Northumberland.....	50,000
Trent River.....	".....	50,000
Coal Creek.....	".....	100,000
Beaver River.....	Ontario.....	100,000
Mill Lake.....	Parry Sound.....	100,000
Magnetawan River.....	".....	50,000
Ahmic Lake.....	".....	50,000
Bear Lake.....	".....	100,000
Canoe Lake.....	Parry Sound.....	50,000
Wolf Lake.....	".....	25,000
Loon Lake.....	".....	25,000
Shanty Lake.....	".....	100,000
Stoney Lake.....	Peterborough.....	200,000
Round Lake.....	".....	100,000
Lake Dore.....	Renfrew.....	200,000
Bass Lake.....	Simcoe.....	100,000
Severn River.....	".....	800,000
Clear Lake.....	Sudbury.....	120,000
Crabb Lake.....	".....	140,000
Geneva Lake.....	".....	140,000
Paradise Lake.....	Waterloo.....	100,000
Lake Ontario.....	Wentworth, York, Halton and Lincoln	1,000,000
Sturgeon Lake.....	Victoria.....	200,000
Lake Simcoe and Brough's Creek and Narrows at Atherley.....	York, Simcoe and Ontario.....	900,000
Total.....		27,625,000

Whitefish

Waters	County	Quantity
Lake Wabigoon.....	Kenora.....	1,000,000
Lake Erie.....	Norfolk.....	40,000,000
Elbow Lake.....	Rainy River.....	1,000,000
Rainy Lake.....	".....	17,950,000

WATERS STOCKED
QUANTITIES AND KINDS OF FISH PLANTED IN 1921.—*Continued.*

<i>Whitefish</i>		
Waters	County	Quantity
Little Turtle Lake.....	" "	1,000,000
Mink Lake.....	" "	1,000,000
Crooked Lake.....	" "	1,000,000
Lake Nipigon.....	Thunder Bay.....	27,000,000
Kashabowie Lake.....	" "	1,000,000
Lake Shebandawan.....	" "	1,000,000
Long Lake.....	" "	1,000,000
Whitefish Lake.....	" "	1,000,000
Little Long Lake.....	" "	1,000,000
Savanne Lake.....	" "	1,000,000
Lake Ontario.....	Wentworth, York, Halton and Lincoln.....	20,000,000
Total.....		115,950,000

<i>Herring</i>		
Waters	County	Quantity
Lake Erie.....	Norfolk.....	7,740,000
Lake Ontario.....	Wentworth, York, Halton and Lincoln..	2,000,000
Total.....		9,740,000

SUMMARY

Black Bass Fry and Fingerlings.....	773,500
Parent Black Bass.....	742
Speckled Trout Fry and Fingerlings.....	1,147,500
Salmon Trout Fry and Fingerlings.....	110,400
Pickarel.....	27,625,000
Whitefish.....	115,950,000
Herring.....	9,740,000
Total distribution.....	155,347,142

COMPARATIVE STATEMENT OF DISTRIBUTION

	1919	1920	1921
Black Bass Fry and Fingerlings.....	200,500	427,200	773,500
Parent Black Bass.....	548	460	742
Speckled Trout Fry and Fingerlings.....	20,600	286,700	1,147,500
Salmon Trout Fry and Fingerlings.....	1,050,100	1,334,000	110,400
Pickrel.....	2,550,000	31,480,000	27,625,000
Whitefish.....	7,740,000	43,335,000	115,950,000
Herring.....	10,800,000	920,000	9,740,000
	22,361,748	77,783,360	155,347,142

1919



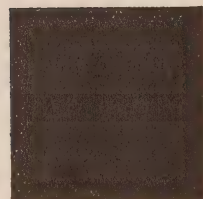
22,361,748

1920



77,783,360

1921



155,347,142

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1920, in the Public

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No	Value	Men	Yards	Value
<i>Kenora and Rainy River.</i>												
1 Lake of the Woods.....	2	42	9,000	2	41	15,650	65	42	2,947	12	51,090	10,248
2 Rainy Lake.....	1	5	500	3	30	16,500	47	28	1,675	13	47,000	9,227
3 Obabican, Lower Manitou, Shoal and Eagle.....	2	18	1,700	4	9	5,500	16	9	315	....	15,500	2,950
4 Stormy, Rowan, Big Sandy and Indian.....					7	2,600	7	1	150	....	9,300	1,850
5 Feegan, Dogtooth, Bear and Long.....					4	1,500	3	1	15	1	6,800	1,470
6 Wabigoon, Orang Outang, Dryberry and Harris.....					3	1,300	5	1	30	2	4,950	1,000
7 Minnetakie, Big Sea Dan- iels, Kawagagama, Vermil- lon and Seul.....					7	4,450	7	5	490	6	19,100	3,360
8 Rock, Pelican, Bays, Abra- ham, Scugonaga and Mc- Kenzie.....					2	500	3	5	300	7	7,300	1,390
9 Stanzhikina, Sturgeon, Lost and Jackfish.....								2	300	3	4,400	644
10 Six Mile, Loon, Kaiarskons, Turtle, Big Saw Mill and Pipestone.....					1	50	....	7	560	13	10,900	2,500
11 Mannican, Clearwater Trout White Otter, Mainville, Sam Weller and Vista.....					2	1,600	6	4	210	2	15,500	3,725
12 Sanford, Pickerel, Manitou, Jackfish, Dogfly, Mink and Black Sturgeon.....					1	150	2	3	200	3	10,200	1,955
Totals.....	5	65	11,200	9	107	49,800	161	108	7,192	62	202,040	40,319

Return of the kinds, quantities and values of fish caught

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickerel, or Dore
<i>Kenora and Rainy River District</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Lake of the Woods...			319,400	95,291		10,657	203,108	250,206
1 Rainy Lake.....				31,572		2,800	120,225	149,597
2 Obabican, Lower Mani- itou, Shoal and Eagle.....				80,710		15,473	53,473	84,062
3 Stormy, Rowan, Big Sandy and Indian.....				46,843		23,600	3,862	6,389
4 Feegan, Dogtooth, Bear and Long.....				5,602		7,392	924	1,323
5 Wabigoon, Orang Out- ang, Dryberry and Harris.....				12,712		3,770	4,772	6,922
6 Minnetakie, Big Sea, Daniels, Kawagoga- ma, Vermillion and Seul.....				24,980		9,478	10,917	44,887
7 Rock, Pelican, Bays, Abraham, Minnetike Scugonaga and Mc- Kenzie.....				20,600		1,100	3,350	11,700
8 Stanzhikina, Sturgeon, Lost and Jackfish.....				15,275		2,307	7,890	13,188
9 Six Mile, Loon, Kaiars- kons, Turtle, Big Saw Mill and Pipestone.....				14,105		6,578	9,413	37,332
10 Mannican, Clearwater, Trout, White Otter, Mainville, Sam Wel- ler and Vista.....				31,356		22,180	18,525	26,515
11 Sanford, Pickerel, Mani- itou, Jackfish, Dog- fly, Mink and Black Sturgeon.....				19,069		17,897	12,998	16,923
Total.....			319,400	398,115		123,232	449,457	649,044
Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
			31,940 00	39,811 50		12,323 20	22,472 85	64,904 40

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the fishing Waters of Kenora and Rainy River Districts.

Fishing material												Other fixtures used in fishing.				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
			30	6,500	26	1,220							25	9,210	26	6,215
			25	10,885									23	7,250	22	4,385
					9	350							7	1,990	8	1,350
													5	500	2	150
													3	300	1	100
													3	350	1	100
													9	2,300	6	125
													5	750	3	1,275
													1	75	2	50
													3	625	1	50
			7	3,000									1	300		
													2	350		
			62	20,385	35	1,570							87	24,000	72	13,800

during the year 1920, in the Public Waters of Kenora and Rainy River Districts.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickrel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
7,480		11,029	49,094	51,842	9,441	24,403				86,157 56
			54,518			125,246	379	198		34,946 99
			2,177	1,150		3,000				21,040 77
			4,375			2,300				8,230 80
										1,477 90
			820			1,000				2,668 20
			2,417			800				8,657 37
			2,100			3,000				3,753 50
			3,768							3,697 58
230		673	2,000			13,590				7,017 19
1,620		575	5,164			15,352			5,316	1,414 63
			2,997			2,518				6,319 34
9,330		12,277	129,430	52,992	9,441	191,209	379	198	5,316	194,381 83
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$	\$ c.	\$ c.
1,119 60		982 16	7,765 80	4,239 36	377 64	7,648 36	379 00	99	318 96	194,381 83

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1920,

Districts		Fishing material											
		Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
		No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
Lake Superior				\$			\$		\$			\$	
1	Thunder Bay	6	292	24,000	79	8	4,800	17	11	1,370	15	287,460	22,445
2	Pigeon River to Sturgeon Pt. Whitefish and Sand Lakes					1	1,000	1	4	180	5	3,650	1,020
3	Black Bay Pt., Pt. Magnet Pine and Arrow Lakes...	1	28	7,500	3	5	3,050	8	8	880	8	38,100	6,185
4	Evelyn, Lamb, Spar and Shaganash Islands					1	300	...	3	370	4	7,500	1,400
5	Rossport, Pays Platte Bay and Wilson Island	3	47	9,000	8	4	2,500	2	6	495	3	40,500	12,400
6	Jackfish, Pt. Caldwell, Mc- Kay and Twin Lakes	2	62	7,000	6	1	150	1	1	50	1	68,000	6,800
7	Kashabowie, Sturgeon, Heathcote, Shebandowan Head and Greenwater Lakes								3	110	5	4,200	575
8	Lake Nipigon	9	221½	33,000	57	6	9,600	17	1	120	...	119,330	26,255
9	Gros Cap, Goulais Bay and Wana Lake					7	2,200	17	6	275	10	33,800	3,025
10	Batchawana Bay, Parisienne and Sandy Island					3	4,700	8	5	215	7	10,130	510
11	Gargantua and Mamainse Point	1	36	7,000	5	3	2,100	11	1	75	2	18,400	11,600
12	Michipicoten and Richard- son's Harbour	4	107½	22,000	36	1	400	1	1	75	2	129,500	14,260
Totals		26	794	109,500	194	40	30,800	83	50	4,215	62	760,570	106,475

Return of the kinds, quantities and values of fish caught

Districts	Herring, Salted	Herring, Fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickarel, or Dore
<i>Lake Superior</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Thunder Bay	497,401	1,104,270		61,911	5,300	158,511	625	3,229
2 Pigeon River to Stur- geon Pt. and White- fish Lake		8,000		23,682		600	2,485	
3 Black Bay and Point Magnet Pine and Arrow Lakes		3,340		55,081	23,600	52,195	3,571	55,078
4 Evelyn, Lamb, Spar and Shaganash Is- lands				600	300	18,160	45	500
5 Rossport, Pays, Platte Bay and Wilson Is- land	118,800	141,600	200	38,866	5,000	206,892		
6 Jackfish, Pt. Coldwell, McKay and Twin Lakes		5,722		2,193	700	20,911	827	1,870
7 Kashabowie, Sturgeon, Heathcote, Sheban- dowan Head and Greenwater Lakes				2,157		500	1,356	3,495
8 Lake Nipigon				1,399,390		369,675	3,605	35,525
9 Gros Cap, Goulais Bay and Wana Lake	400	6,400		42,950	200	51,525	500	200
10 Batchawana Bay, Pa- risienne and Sandy Island		700		45,680		32,805	956	14,899
11 Gargantua and Mam- ainse Point		16,921		4,262	60	130,632	1,301	3,983
12 Michipicoten and Rich- ardson's Harbour				27,961	110,000	290,022		
Totals	616,601	1,286,953	200	1,704,733	145,700	1,332,428	15,271	118,779
Values	\$ c. 30.830 05	\$ c. 64.347 65	i c. 20.00	\$ c. 170.473 30	\$ c. 14.570 00	\$ c. 133.242 80	\$ c. 763 55	\$ c. 11.877 90

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Superior.

Fishing material											Other fixtures used in fishing					
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
	\$			\$		\$		\$		\$		\$		\$		\$
					1	60							7	5,220	6	2,000
													1	200	1	600
			11	8,300									4	1,210	4	870
			6	1,800												
			1	200									4	1,650	2	1,000
			10	6,000									1	100	2	15
													1	500	1	200
			5	5,000									3	175	3	750
			14	13,000					1,300	80			2	2,500	2	1,300
									1,300	100			1	300	1	500
			8	4,000									5	3,150	3	2,000
			55	38,300	1	60			2,600	180			29	15,005	25	9,235

during the year 1920, in the Public Waters of Lake Superior

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickeral (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
						58,917				105,366 58
						4,932				3,149 73
627	20,496					41,750			7,267	23,171 81
										1,958 25
						200				38,123 80
805							22			3,013 45
						1,700				754 00
20995			50				145			183,303 65
300						1,000				9,928 50
7,880						6,425	35			10,658 80
										14,858 80
										42,798 30
30,607	20,496		50			114,924	202		7,267	437,085 67
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.		\$ c.	\$ c.
3,672 84	2,049 60		300			4,516 96	202 00		436 02	437,085 67

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1920.

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>North Channel, Lake Huron</i>			\$			\$			\$			\$
1 Thessalon.....	1	26½	7,000	4	7	3,600	15	13	660	11	25,200	2,053
2 Spanish, St. Joseph Isles and Spragge.....	1	27½	4,500	3	5	1,700	8	15	1,230	18	19,200	3,900
3 Bruce Mines, Algoma Mills, Buswell's Pt and McKinnon.....	1	16	3,000	3	5	2,600	14	7	305	8	12,300	2,505
4 Little Detroit Fitzwilliam, Squaw and Duck Islands.....	6	142	39,200	33	4	1,700	8	1	50	2	272,400	45,000
5 South Bay, Kagawong and Little Current.....	3	56	10,000	12	3	1,650	8	6	620	10	68,800	18,547
6 Killarney.....	1	20	4,000	4	9	4,550	20	4	485	6	28,500	1,950
7 Meldrum, Providence, Sheguindah and Gore Bay....	5	184	36,500	25	1	300	4	4	420	5	149,500	14,750
8 Manitowaning, Mississauga, Tamarack Cove and Berry Islands.....	1	29½	8,000	6	3	1,625	10	1	100	2	61,000	8,240
9 Bedford and Cockburn Islands and Manitou.....	1	29½	8,000	6	3	400	6	1	50	2	69,000	8,950
Totals.....	20	531	120,200	96	40	18,125	93	52	3,920	64	705,900	105,895

Return of the kinds, quantities and values of the fish caught during

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickarel or Dore
<i>North Channel, Lake Huron</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Thessalon.....		6,076		158,461		62,839	13,894	74,809
2 Spanish, St. Joseph Isles and Spragge.....		6,948		5,330		15,172	17,101	42,534
3 Bruce Mines, Algoma Mills, Buswells Pt. and McKinnon.....	35	2,548	175	14,601	50	13,919	10,513	47,699
4 Little Detroit, Fitzwilliam, Squaw and Duck Islands.....				92,203		272,985		1,778
5 South Bay, Kagawong and Little Current.....			300	46,159	912	265,562	4,741	42,457
6 Killarney.....				366,131	5	84,379	17,972	10,167
7 Meldrum, Providence, Sheguindah and Gore Bay.....	120	8,601	77	126,583		205,441	2,243	14,624
8 Manitowaning, Mississauga, Tamarack Cove and Berry Is.....				70,133		99,420	658	5,210
9 Bedford and Cockburn Islands and Manitou.....				23,102		88,054	1,378	2,725
Totals.....	155	24,173	552	902,703	967	1,107,771	68,500	242,003
Values.....	\$ c. 775	\$ c. 1,208 65	\$ c. 55 20	\$ c. 90,270 30	\$ c. 96 70	\$ c. 110,777 10	\$ c. 3,425 00	\$ c. 24,200 30

FISHERIES

the quality and value of all fishing material and other fixtures employed in the in the Public Waters of North Channel

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
			33	15,200									7	2,650	8	3,000
			18	8,150	2	300							7	820	3	750
			19	8,100	5	250							5	930	2	1,500
			21	23,500									2	1,500	2	9,500
			13	9,000									2	1,000	3	1,000
			31	26,800									1	100	1	1,000
			33	22,400									5	2,000	5	5,100
			12	6,000									1	700	1	300
			7	4,500									1	200	1	400
			187	123,650	7	550							31	9,900	26	22,550

the year 1920, in the Public Waters of North Channel, Lake Huron.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and Coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
3,877		1,774			14,099	121,878	94			36,749 64
1,451		577			1,430	88,119	37			11,345 29
2,539		740		135	1,644	48,202				10,667 72
						2,235				36,786 00
3,208		3,369	20,712			28,115	7			38,804 85
		350		1,595	40	4,145				47,289 80
1,434		799				81,559				38,719 06
245		338				40,494				19,185 40
1,050		468				6,044				11,862 20
13,804		8,415	20,712	1,730	17,213	420,791	138			251,409 96
\$ c. 1,656 48	\$	\$ c. 673 20	\$ c. 1,242 72	\$ c. 138 40	\$ c. 688 52	\$ c. 16,831 64	\$ 138	\$	\$ c.	\$ c. 251,409 96

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1920

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Georgian Bay</i>			\$			\$			\$			\$
1 Parry Sound,	5	165	33,000	23	13	11,800	23	12	1,220	19	345,000	48,910
2 Simcoe and Muskoka,	2	48	12,000	10	13	5,275	23	28	1,830	39	199,500	19,256
3 Grey County,	5	139	28,000	22	31	18,845	62	11	575	12	345,300	29,305
4 Bruce County,	3	55	8,300	10	19	16,850	41	34	2,050	43	121,500	11,195
Totals,	15	407	81,300	65	76	52,770	149	85	5,675	113	1,011,300	108,666

Returns of the kinds, quantities and values of fish caught

Districts.	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickrel, or Dore
<i>Georgian Bay</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Parry Sound.		1,900	2,300	376,464	650	200,112	31,609	58,233
2 Simcoe and Muskoka.	400	24,221	3,300	48,022	3,250	130,617	12,529	7,800
3 Grey County.		11,211	.....	1,590	6,850	374,866	.....	.....
4 Bruce County.	3,250	11,950	300	19,275	7,650	266,563	26	274
Totals.	3,650	49,282	5,900	445,351	18,400	972,158	44,164	67,307
Values.	\$ c. 182 50	\$ c. 2,464 10	\$ c. 590 00	\$ c. 44,535 10	\$ c. 1,840 00	\$ c. 97,215 20	\$ c. 2,200 20	\$ c. 7,730 70

FISHERIES

quantity and value of all fishing materials and other fixtures employed in the in the public waters of Georgian Bay

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
10	810	725	15	14,600	28	765			2,300	160			6	6,800	7	4,300
									5,300	280			7	1,400	4	1,820
									12,400	2,825			10	1,500	9	1,750
			8	4,900					8,800	1,240			8	1,400	8	1,100
10	810	725	23	19,500	28	765			28,800	4,505			31	11,100	28	8,970

during the year 1920, in the Public Waters of Georgian Bay.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
1,425		200		75		8,000	30			66,094 35
1,230		3,798	2,150	2,340	54,319	32,883				25,412 12
		100	12,000							39,619 15
			62,124			2,500				33,994 94
2,655		4,098	76,274	2,415	54,319	43,383	30			165,120 56
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$	\$ c.	\$ c.
318 60		327 84	4,576 44	193 20	2,172 76	1,735 32	30			165,120 56

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1920,

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake Huron (Proper)</i>			\$			\$			\$			\$
1 Bruce County.....	8	174	36,500	44	18	13,500	43	14	1,800	19	277,335	46,650
2 Huron County.....					9	8,100	20	5	590	13	62,740	9,020
3 Lambton Co., including River St. Clair.....					23	9,650	39	21	870	29		
Totals.....	8	174	36,500	44	50	31,250	102	40	3,260	61	340,075	55,670

Return of the kinds, quantities and values of fish caught

Districts	Herring, Salted	Herring, Fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickeral, or Dore
<i>Lake Huron (Proper)</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Bruce County.....	6,700	35,478	900	41,056	55,850	664,454	1,651	264
2 Huron County.....		35,900		5,700	1,000	116,100		15,700
3 Lambton Co. (including River St. Clair).	1,000	101,252		35,438		9,614	3,344	123,770
Totals.....	7,700	172,630	900	82,194	56,850	790,168	4,995	139,634
Values.....	\$ c 385 00	\$ c. 8,631 50	\$ c 90 00	\$ c 8,219 40	\$ c 5,685 00	\$ c. 79,016 80	\$ c. 249 75	\$ c. 13,963 40

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the in the public waters of Lake Huron (proper)

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves.	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
			2	600					2,100	175			11	4,490	6	875
			10	4,800									10	3,300	7	425
7	605	710	57	35,150	2	150	2	10	200	15			9	2,850	2	800
7	605	710	69	40,550	2	150	2	10	2,300	190			30	10,640	15	2,100

during the year 1920, in the Public Waters of Lake Huron (Proper)

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and Coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
30		1,600	193,146			7,625	12....			90,481 21
1,200		119,097	12,883			26,459	71....			27,219 10
7,946		8,460		227	3,988	64,972	566...		2,176	27,255 44
9,176		129,157	206,029	227	3,988	99,056	649....		2,176	144,955 75
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$ c.	\$ c.
1,101 12		10,332 56	12,361 74	18 16	159 52	3,962 24	\$ 649 00		130 56	144,955 75

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats fishing industry during the year 1920

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton-nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake St. Clair, etc.</i>			\$			\$			\$			\$
1 Kent Co. (including River Thames).....					34	14,800	48	48	2,725	73		
2 Essex County.....					4	7,245	37	30	1,970	30		
3 Detroit River.....					24	2,150	15	17	580	34		
Totals.....					62	24,195	100	95	5,275	137		

Return of the kinds, quantities and values of fish caught

Districts.	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickeral, or Dore
<i>Lake St. Clair, etc.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Kent County, (including River Thames).....							74,429	12,640
2 Essex County.....		400		3,127			28,512	13,603
3 Detroit River.....				4,200			4,635	725
Totals.....		400		7,327			107,576	26,968
Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		20 00		732 70			5,378 80	2,696 80

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake St. Clair, etc.

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
30	4,971	4,295	8	2,000	148	29,400	1	10	800	20			29	7,650	10	3,550
8	2,225	1,350	6	2,400	81	10,450			600	60			15	6,775		
17	2,055	2,345							200	50						
55	9,251	7,990	14	4,400	229	39,850	1	10	1,600	1 30			44	14,425	10	3,550

during the year 1920, in the Public Waters of Lake St. Clair, etc.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
bs.	lbs.	lbs.	bs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
.....	133,111	.....	60,105	274,599	419,608	.....	.....	400	48,235 01
12,704	98,110	.....	80,817	78,438	164,878	526	.....	.....	29 215 88
300	400	.....	325	42,400	18,650	.....	.....	.....	3,260 25
13,004	231,621	.....	141,247	395,437	603,136	526	.....	400	80,711 14
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$	\$ c.	\$ c.
1,560 48	18,529 68	.....	11,299 76	15,817 48	24,125 44	526	.....	24 00	80,711 14

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the fishing industry during the year 1920,

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake Erie</i>			\$			\$			\$			\$
1 Essex County.....	2	91	26,000	12	45	46,000	87	32	2,385	36	140,300	31,050
2 Kent County.....	6	72	25,300	18	48	36,450	125	31	2,505	35	63,800	8,225
3 Elgin County.....	22	862	189,357	139	26	18,900	80	24	1,190	19	577,800	76,790
4 Norfolk County.....	12	417	124,500	76	27	16,960	81	42	2,520	64	365,100	49,675
5 Haldimand County (includ- ing Grand River)	8	211	54,000	38	18	9,900	48	38	3,165	41	243,500	33,670
6 Welland County (includ- ing Upper Niagara River)	.....	.....	.....	.....	2	2,300	8	18	1,110	20	12,100	1,450
Totals.....	50	1,653	419,157	283	166	130,510	429	185	12,875	215	1,402,600	200,860

Return of the kinds, quantities and values of fish caught

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickered, or Dore
<i>Lake Erie</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Essex County.....	186,421	20,000	284,744	.....	.....	1,020	75,870
2 Kent County.....	1,091,145	.....	68,632	.....	45	32,368	43,497
3 Elgin County.....	4,119,648	.....	82,001	.....	.....	12,284	23,021
4 Norfolk County.....	2,301,103	.....	141,719	.....	722	63,788	8,995
5 Haldimand County (including Grand River).....	1,907,191	.....	234,953	.....	277	549	8,891
6 Welland County (including Upper Niagara River).....	45,776	.....	6,255	.....	.....	5,250	5,739
Totals.....	9,651,284	20,000	818,304	.....	1,044	115,259	166,013
Value.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
	482,564 20	2,000 00	81,830 40	.....	104,40	5,762 9	16,601 30

FISHERIES

quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Erie.

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
8	1,725	2,200	211	147,000	1	25	1	5	500	10			27	26,600	11	5,500
7	2,475	1,350	223	200,850									34	50,550	21	9,900
			129	127,000			5	75	900	20			25	22,050	14	6,660
31	12,050	10,025	18	8,000	25	670							16	17,535	14	5,450
6	885	640	50	31,950			12	90					9	4,300	3	1,050
1	150	60	6	3,000			1	15	5,700	165			2	250		
53	17,285	14,275	637	517,800	26	695	19	185	7,100	195			113	121,285	63	28,560

during the year 1920, in the Public Waters of Lake Erie.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and course fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lb.	bs.	lbs	lbs.	lbs.	No.	lbs.	c.
.....	3,743	240,459	.....	8,025	87,096	451,006	.....	.....	432,990	115,189 95
..... 67		486,405	.....	679	76,719	141,143	.....	.....	1,387,406	198,326 65
..... 200	34,982	278,226	.....	7,814	2,047	32,909	.....	.....	1,208,557	317,415 86
.....	17	181,904	.....	25,265	203,194	100,008	.....	.....	115,621	169,028 71
.....		67,745	.....	113	61,892	121,386	.....	.....	190,602	143,994 98
.....		17,442	.....	155	916	54,039	.....	.....	19,347	8,517 48
..... 267	38,742	1,272,181	.....	42,051	431,864	900,491	.....	.....	3,354,523	952,473 63
\$ c. 32 04	\$ c. 3,874 20	\$ c. 101,774 48	\$ c.	\$ c. 3,364 08	\$ c. 17,274 56	\$ c 36,019 64	\$	\$	\$ c. 201,271 38	\$ c. 952,473 63

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1920,

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
Lake Ontario.			\$			\$			\$			\$
1 Lincoln County.....	21				11,200	34	6	205	18		84,550	8,460
2 Wentworth County.....	4				2,900	7	6	335	12		39,500	3,470
4 Halton County.....	12				5,600	22	3	200	4		71,000	7,590
4 Peel County.....	3				1,800	7	1	25	1		22,000	3,400
5 York County.....	10				4,575	19	5	350	3		36,800	7,785
6 Ontario County.....	12				4,650	21	4	220	5		53,000	6,690
7 Durham County.....	10				7,050	22					59,600	9,680
8 Northumberland County.....	11				5,400	23	15	830	25		81,660	9,375
9 Prince Edward County.....	64				23,591	116	115	5,505	173		360,652	39,867
10 Bay of Quinte (Proper).....	52				13,595	103	103	6,013	181		158,200	22,836
11 Bay of Quinte (Eastern Channel.....	10				2,180	16	17	1,060	21		65,000	21,995
12 Wolfe Island and Vicinity.....	13				3,750	22	29	1,243	31		26,000	3,150
Totals.....	222				86,291	412	304	15,986	474		1,057,962	144,298

Return of the kinds, quantities and values of fish caught

Districts.	Herring, Salted	Herring, Fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickrel or Dore
<i>Lake Ontario.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Lincoln County		98,724		51,423		11,479	100	879
2 Wentworth County		26,000		26,300		7,100	15	500
3 Halton County		79,200	1,000	26,800		36,275	100	
4 Peel	1,000	37,000		9,000		53,000		
5 York County		13,400		53,975		10,800		
6 Ontario County		500		133,527		4,765	461	
7 Durham County		1,500		211,954		15,365		
8 Northumberland Co.		29,050		188,546		37,226	28,150	
9 Prince Edward County	400	271,182	780	785,015		230,470	58,205	800
10 Bay of Quinte (Proper)	1,500	692,139	370	383,842			195,627	28,450
11 Bay of Quinte (Eastern Channel)	100	24,626		134,273	300	34,393	4,055	2,204
12 Wolfe Island and vicinity	650	14,259	800	19,403	3,050	17,790	24,719	3,718
Totals	3,650	1,287,580	2,950	2,024,058	3,350	458,663	311,432	36,551
Values	\$ c. 182 50	\$ c. 64,379 00	\$ c. 295 00	\$ c. 202,405 80	\$ c. 335 00	\$ c. 45,866 30	\$ c. 15,571 60	\$ c. 3,655 10

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Ontario.

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
7	690	1,650							600	23			3	1,000		
1	100	75											1	1,000		
1	10	15							45	15			2	250	2	750
1	200	180											1	150		
2	290	405					1	20					4	575		
													1	100		
2	105	175			29	1,315									1	100
					155	5,485			4,520	215			27	3,300	3	400
					395	15,065			500	20			5	680	9	393
					8	390			1,200	76			1	150	1	40
					138	5,135			300	15			5	825	6	850
14	1,395	2,500			725	27,390	1	20	7,165	364			50	8,030	22	2,533

during the year 1920, in the Public Waters of Lake Ontario

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickeral (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
500	834	550		200	6,550	12,518	338	240	8,322	13,242 74
		1,400			700	1,160			1,245	4,951 85
	50	95			8,000	200				10,713 10
						1,025				8,141 00
					12,000	15,600				8,251 50
		70		428	3,292	6,400				14,304 77
						7,000				23,086 90
	2,100	4,000		18,692	500	29,232				28,651 84
	16,644	14,150	300	37,739	9,815	93,984				128,181 33
	49,022	62,950		80,819	9,075	201,541			250	110,572 86
	6,095	2,680		868	780	6,470			25	19,740 89
	17,187	21,488		31,469	14,962	38,711				14,559 68
500	91,932	107,383	300	170,215	65,674	413,841	338	240	9,842	384,398 46
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$	\$ c.	\$ c.
60 00	9,193 20	8,590 64	18 00	13,617 20	2,626 96	16,553 64	338	120	590 52	384,398 46

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats fishing industry during the year

		Fishing material											
D'stricts.		Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
		No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Inland Waters</i>				\$			\$			\$			\$
1	Frontenac County.....					1	300	2	16	420	24		
2	Lanark and Leeds Counties.....					4	1,150	7	64	2,288	74		
3	Grenville, Dundas, Stormont and Glengarry Counties.....					3	650	5	20	400	22		
4	Prescott, Russell, Carleton and Renfrew Counties.....					1	15	1	20	375	27	1,030	235
5	Peterborough and Victoria Counties.....					7	2,500	12	15	355	21		
6	Lake Simcoe.....					5	3,750	18	18	625	18		
7	Lake Nipissing.....					6	3,700	14					
8	Temiskaming and Nipissing Districts.....					13	8,400	27	16	1,805	13	20,350	4,370
Totals.....						40	20,465	86	169	6,268	199	21,380	4,605

Return of the kinds, quantities and values of fish

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickrel, or Dore
<i>Inland Waters.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Frontenac County....							10,552	
2 Lanark and Leeds Co.....							13,999	
3 Grenville, Dundas, Stormont and Glengarry Counties.....							1,055	
4 Prescott, Russell, Carleton and Renfrew Counties.....							5,710	2,040
5 Peterboro and Victoria Counties.....							1,450	
6 Lake Simcoe.....		1,970		8,200		12,960		1,100
7 Lake Nipissing.....		28,490		32,920			19,477	98,576
8 Temiskaming and Nipissing Districts.....	400	8,592		29,913	800	618	55,289	57,226
Totals.....	400	39,052		71,033	800	13,578	107,532	158,942
Values.....	\$ c. 20 00	\$ c. 1,952 60	\$ c.	\$ c. 7,103 30	\$ c. 80 00	\$ c. 1,357 80	\$ c. 5,376 60	\$ c. 15,894 20

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the 1920, in Inland Waters.

Fishing material											Other fixtures used in fishin					
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
1	78	165			47	2,175										
12	314	517			179	4,855			2,765	270						
3	60	36			21	850	4	10	6,000	80						
					45	1,390			2,200	115			6	5.5		
7	520	450			29	990	2	20	600	24			4	250	1	25
6	1,400	2,300			5	100			3,200	110	122	410	1	1,500	3	900
			18	7,200									3	2,000	3	1,800
			15	3,650	63	1,750							14	7,750	7	940
29	2,372	3,468	33	10,850	389	12,110	6	30	14,765	599	122	410	28	12,035	14	3,667

caught during the year 1920, in Inland Waters

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickrel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs	lbs. No	lbs.	lbs.	\$ c.
1,075	4,095 10,570	3,980 6,625		27,043 57,845	1,035	28,524 83,789	300			4,559 90 10,736 51
6,670	3,350	610		6,580	775	3,185	30			1,951 75
775	2,650	8,525		12,275	1,165	27,800				3,670 10
	5,743	800		29,615	12,376	43,768				5,325 76
		3,684			115,476	36,452				8,696 34
96,800						7,891	3,152			30,631 59
4,308		5,391				49,170				14,984 79
109,628	26,408	29,615		133,358	130,827	280,579	3,482			80,556 74
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ \$	\$	\$ c.	\$ c.
13,155 36	2,640 80	2,369 20		10,668 64	5,233 08	11,223 16	3,482			80,556 74

ONTARIO

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats, industry during

Disr.cts.	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
			\$			\$			\$			\$
1 Kenora and Rainy River District.....	5	65	11,200	9	107	49,800	161	108	7,192	62	202,040	40,319
2 Lake Superior.....	26	794	109,500	194	40	30,800	83	50	4,215	62	760,570	106,475
3 Lake Huron(North Channel)	20	531	120,200	96	40	18,125	93	52	3,920	64	705,900	105,895
4 Georgian Bay.....	15	407	81,300	65	76	52,770	149	85	5,675	113	1,011,300	108,666
5 Lake Huron (Proper).....	8	174	36,500	44	50	31,250	102	40	3,260	61	340,075	55,670
6 Lake St. Clair, etc.....					62	24,195	100	95	5,275	137		
7 Lake Erie.....	50	1,653	419,157	283	166	130,510	429	185	12,875	215	1,402,600	200,860
8 Lake Ontario.....					222	86,291	412	304	15,986	474	1,057,962	144,298
9 Inland Waters.....					40	20,465	86	169	6,268	199	21,380	4,605
Totals.....	124	3,624	777,857	691	803	444,206	1615	1088	64,666	1387	5,501,827	766,788

Recapitulations of the kinds, quantities and values

Districts	Herring, salted	Herring, fresh	Whitefish, salted,	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickeral or Dore
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Kenora and Rainy River District.....			319,400	398,115		123,232	449,457	649,044
2 Lake Superior.....	616,601	1,286,953	200	1,704,733	145,700	1,332,428	15,271	118,779
3 Lake Huron (North Channel).....	155	24,173	552	902,703	967	1,107,771	68,500	242,003
4 Georgian Bay.....	3,650	49,282	5,900	445,351	18,400	972,158	44,164	67,307
5 Lake Huron (Proper).....	7,700	172,630	900	82,194	56,850	790,168	4,995	139,634
6 Lake St. Clair, etc.....		400		7,327			107,576	26,968
7 Lake Erie.....		9,651,284	20,000	818,304		1,044	115,259	166,013
8 Lake Ontario.....	3,650	1,287,580	2,950	2,024,058	3,350	458,663	311,432	36,551
9 Inland Waters.....	400	39,052		71,033	800	13,578	107,532	158,942
Totals.....	632,156	12,511,354	349,902	6,453,818	226,067	4,799,042	1,224,186	1,605,241
Values.....	\$ c. 31,607 80	\$ c. 625,567 70	\$ c. 34,990 20	\$ c. 645,381 80	\$ c. 22,606 70	\$ c. 479,904 20	\$ c. 61,209 30	\$ c. 160,524 10

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the year of 1920.

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
.....	.....	.....	62	20,385	35	1,570	.....	.....	.....	.....	.....	.....	87	24,000	72	13,800
.....	.....	.....	55	38,300	1	60	.....	.....	2,600	180	.....	.....	29	15,005	25	9,235
.....	8	.....	187	123,650	7	550	.....	.....	.....	.....	.....	.....	31	9,900	26	22,550
10	10	725	23	19,500	28	765	.....	.....	28,800	4,505	.....	.....	31	11,100	28	8,970
7	605	710	69	40,550	2	150	2	10	2,300	190	.....	.....	30	10,640	15	2,100
55	9,251	7,990	14	4,400	229	39,850	1	10	1,600	130	.....	.....	44	14,425	10	3,550
53	17,285	14,275	637	517,800	26	695	19	185	7,100	195	.....	.....	113	121,285	63	28,560
14	1,395	2,500	.....	.....	725	27,390	1	20	7,165	364	.....	.....	50	8,030	22	2,533
29	2,372	3,468	33	10,850	389	12,110	6	30	14,765	599	122	410	28	12,035	14	3,665
168	31,718	29,668	1,080	775,435	1,442	83,140	29	255	64,330	6,163	122	410	443	226,420	275	94,963

of fish caught during the year 1920

Sturgeon	Eels	Pereh	Tullibee	Catfish	Carp	Mixed and Coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
bs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
9,330		12,277	129,430	52,992	9,441	191,209	379	198	5,316	194,381 83
30,607	20,496		50			114,924	202		7,267	437,085 67
13,804		8,415	20,712	1,730	17,213	420,791	138			251,409 96
2,655		4,098	76,274	2,415	54,319	43,383	30			165,120 56
9,176		129,157	206,029	227	3,988	99,056	649		2,176	144,955 75
13,004		231,621		141,247	395,437	603,136	526		400	80,711 14
267	38,742	1,272,181		42,051	431,864	900,491			3,354,523	952,473 63
500	91,932	107,383	300	170,215	65,674	413,841	338	240	9,842	384,398 46
109,628	26,408	29,615		133,358	130,827	280,579	3,482			80,556 74
188,971	177,578	1,794,747	432,795	544,235	1,108,763	3,067,410	5,744	438	3,379,524	2,691,093 74
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$	\$ c.	\$ c.
22,676 52	17,757 80	143,579 76	25,967 70	43,538 80	44,350 52	122,696 40	5,744	219	202,771 44	2,691,093 74

Comparative Statement of yield for 1919-20, according to Districts.

	1919	1920	Increase	Decrease
Kenora and Rainy River Districts:				
Herring, Salted. Lbs.				
Herring, Fresh. "				
Whitefish, Salted. "	1,100	319,400	318,300	
Whitefish, Fresh. "	496,483	398,115		98,368
Trout, Salted. "	50			50
Trout, Fresh. "	90,807	123,232	32,425	
Pike. "	635,4 4	449,457		185,947
Pickeral (Dore). "	837,049	649,044		188,005
Sturgeon. "	14,316	9,330		4,986
Eels. "				
Perch. "	9,717	12,277	2,560	
Tullibee. "	241,263	129,430		111,833
Catfish. "	76,754	52,992		23,762
Carp. "	53,232	9,441		43,791
Mixed and Coarse Fish. "	259,972	191,209		68,763
Caviare. "	269	379	110	
Sturgeon Bladders. No.		198	198	
Pickeral (Blue). Lbs.		5,316	5,316	
Lake Superior:				
Herring, Salted. "	545,350	616,601	71,251	
Herring, Fresh. "	1,508,157	1,286,953		221,204
Whitefish, Salted. "	3,450	200		3,250
Whitefish, Fresh. "	2,029,699	1,704,733		324,966
Trout, Salted. "	144,638	145,700	1,062	
Trout, Fresh. "	1,960,222	1,332,428		627,794
Pike. "	18,980	15,271		3,709
Pickeral (Dore). "	140,966	118,779		22,187
Sturgeon. "	21,919	30,607	8,688	
Eels. "		20,496	20,496	
Perch. "				
Tullibee. "	840	50		790
Catfish. "				
Carp. "				
Mixed and Coarse Fish. "	290,217	114,924		175,293
Caviare. "	152	202	50	
Pickeral Blue. "		7,267	7,267	
North Channel, (Lake Huron):				
Herring, Salted. "	2,869	155		2,714
Herring, Fresh. "	28,506	24,173		4,333
Whitefish, Salted. "	848	552		296
Whitefish, Fresh. "	799,336	902,703	103,367	
Trout, Salted. "	10,550	967		9,583
Trout, Fresh. "	1,595,608	1,107,771		487,837
Pike. "	160,639	68,500		92,139
Pickeral (Dore). "	225,404	242,003	16,599	
Sturgeon. "	13,523	13,804	281	
Eels. "				
Perch. "	11,580	8,415		3,615
Tullibee. "	25,996	20,712		5,284
Catfish. "	1,111	1,730	619	
Carp. "	1,020	17,213	16,193	
Mixed and Coarse Fish. "	350,755	420,791	70,036	
Caviare. "	86	138	52	
Georgian Bay:				
Herring, Salted. "	5,600	3,650		1,950

Comparative Statement of yield for 1919-20, according to Districts—Continued.

	1919	1920	Increase	Decrease
Georgian Bay.—Continued:				
Herring, Fresh. Lbs. . . .	60,870	49,282		11,588
Whitefish, Salted "	9,650	5,900		3,750
Whitefish, Fresh "	391,008	445,351	54,343	
Trout, Salted "	26,300	18,400		7,900
Trout, Fresh "	898,417	972,158	73,741	
Pike "	28,341	44,164	15,823	
Pickere! (Dore) "	76,839	67,307		9,532
Sturgeon "	1,778	2,655	877	
Eels "	50			50
Perch "	6,076	4,098		1,978
Tullibee "	53,784	76,274	22,490	
Catfish "	4,948	2,415		2,533
Carp "	54,516	54,319		197
Mixed and Coarse Fish "	81,277	43,383		37,894
Caviare "		30	30	
Pickere! (Blue) "	200			200
Lake Huron (Proper)				
Herring, Salted "	8,000	7,700		300
Herring, Fresh "	143,017	172,630	29,613	
Whitefish, Salted "	6,800	900		5,900
Whitefish, Fresh "	90,619	82,194		8,425
Trout, Salted "	51,550	56,850	5,300	
Trout, Fresh "	827,722	790,168		37,554
Pike "	3,333	4,995	1,662	
Pickere! (Dore) "	182,562	139,634		42,928
Sturgeon "	11,094	9,176		1,918
Eels "	25			25
Perch "	67,469	129,157	61,688	
Tullibee "	170,165	206,029	35,864	
Catfish "	383	227		156
Carp "	6,910	3,988		2,922
Mixed and Coarse Fish "	105,314	99,056		6,258
Caviare "	1,023	649		374
Pickere! (Blue) "	550	2,176	1,626	
Lake St. Clair, Etc:				
Herring, Salted "				
Herring, Salted "		400	400	
Whitefish, Salted "				
Whitefish, Fresh "	13,300	7,327		5,973
Trout, Salted "				
Trout, Fresh "				
Pike "	38,235	107,576	69,341	
Pickere! (Dore) "	60,319	26,968		33,351
Sturgeon "	10,800	13,004	2,204	
Eels "				
Perch "	140,147	231,621	91,474	
Tullibee "				
Catfish "	73,805	141,247	67,442	
Carp "	294,440	395,437	100,997	
Mixed and Coarse Fish "	537,262	603,136	65,874	
Caviare "	478	526	48	
Pickere! (Blue) "	500	400		100
Lake Erie:				
Herring, Salted "				
Herring, Fresh "	7,425,713	9,651,284	2,225,571	
Whitefish, Salted "		20,000	20,000	

Comparative Statement of yield for 1919-20, according to Districts.—Concluded.

	1919	1920	Increase	Decrease
Lake Erie.—Continued:				
Whitefish, Fresh.....Lbs.....	1,094,280	818,304		275,976
Trout, Salted.....“.....				
Trout, Fresh.....“.....	1,528	1,044		484
Pike.....“.....	727,037	115,259		611,778
Pickrel (Dore).....“.....	144,323	166,013	21,690	
Sturgeon.....“.....	42,709	267		42,442
Eels.....“.....		38,742	38,742	
Perch.....“.....	1,096,935	1,272,181	175,246	
Tullibee.....“.....	1,323			1,323
Catfish.....“.....	33,972	42,051	8,079	
Carp.....“.....	378,380	431,864	53,484	
Mixed and Coarse Fish.....“.....	793,658	900,491	106,833	
Caviare.....“.....	1,827½			1,827½
Sturgeon Bladders.....No.....	4			4
Pickrel (Blue).....Lbs.....	2,387,787	3,354,523	966,736	
Lake Ontario:				
Herring, Salted.....“.....	10,930	3,650		7,280
Herring, Fresh.....“.....	1,709,412	1,287,580		421,832
Whitefish, Salted.....“.....	7,225	2,950		4,275
Whitefish, Fresh.....“.....	1,586,333	2,024,058	437,725	
Trout, Salted.....“.....	900	3,350	2,450	
Trout, Fresh.....“.....	553,203	458,663		94,540
Pike.....“.....	246,095	311,432	65,337	
Pickrel (Dore).....“.....	40,459	36,551		3,908
Sturgeon.....“.....		500	500	
Eels.....“.....	167,186	91,932		75,254
Perch.....“.....	158,802	107,383		51,419
Tullibee.....“.....		300	300	
Catfish.....“.....	247,840	170,215		77,625
Carp.....“.....	169,471	65,674		103,797
Mixed and Coarse Fish.....“.....	603,014	413,841		189,173
Caviare.....“.....	202	338	136	
Sturgeon Bladders.....No.....		240	240	
Pickrel (Blue).....Lbs.....	2,692	9,842	7,150	
Inland Waters:				
Herring, Salted.....“.....		400	400	
Herring, Fresh.....“.....	75,056	39,052		36,004
Whitefish, Salted.....“.....	843			843
Whitefish, Fresh.....“.....	94,330	71,033		23,297
Trout, Salted.....“.....	500	800	300	
Trout, Fresh.....“.....	12,335	13,578	1,243	
Pike.....“.....	136,689	107,532		29,157
Pickrel (Dore).....“.....	214,079	158,942		55,137
Sturgeon.....“.....	108,519	109,628	1,109	
Eels.....“.....	20,842	26,408	5,566	
Perch.....“.....	33,686	29,615		4,071
Tullibee.....“.....	11,564			11,564
Catfish.....“.....	116,087	133,358	17,271	
Carp.....“.....	194,080	130,827		63,253
Mixed and Coarse Fish.....“.....	336,279	280,579		55,700
Caviare.....“.....	3,020	3,482	462	

STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO FOR THE YEAR, 1920, AS FURNISHED BY THE FISHERMAN'S ANNUAL RETURNS.

Kinds of Fish	Quantity	Price	Value
Herring, Salted.....Lbs.....	632,156	5	\$ 31,607 80
Herring, Fresh.....“.....	12,511,354	5	625,567 70
Whitefish, Salted.....“.....	349,902	10	34,990 20
Whitefish, Fresh.....“.....	6,453,818	10	645,381 80
Trout, Salted.....“.....	226,067	10	22,606 70
Trout, Fresh.....“.....	4,799,042	10	479,904 20
Pike.....“.....	1,224,186	5	61,209 30
Pickrel (Dore).....“.....	1,605,241	10	160,524 10
Sturgeon.....“.....	188,971	12	22,676 52
Eels.....“.....	177,578	10	17,757 80
Perch.....“.....	1,794,747	8	143,579 76
Tullibee.....“.....	432,795	6	25,967 70
Catfish.....“.....	544,235	8	43,538 80
Carp.....“.....	1,108,763	4	44,350 52
Mixed and Coarse Fish.....“.....	3,067,410	4	122,696 40
Caviare.....“.....	5,744	1 00	5,744 00
Sturgeon Bladders.....No.....	438	50	219 00
Pickrel (Blue).....Lbs.....	3,379,524	6	202,771 44
Total.....			2,691,093 74

COMPARATIVE STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE.

—	1919	1920	Increase	Decrease
Herring, Salted.....Lbs.....	572,749	632,156	59,407	
Herring, Fresh.....“.....	10,950,731	12,511,354	1,560,623	
Whitefish, Salted.....“.....	29,916	349,902	319,986	
Whitefish, Fresh.....“.....	6,595,388	6,453,818		141,570
Trout, Salted.....“.....	234,488	226,067		8,421
Trout, Fresh.....“.....	5,939,842	4,799,042		1,140,800
Pike.....“.....	1,994,753	1,224,186		770,567
Pickrel (Dore).....“.....	1,922,000	1,605,241		316,759
Sturgeon.....“.....	224,658	188,971		35,687
Eels.....“.....	188,103	177,578		10,525
Perch.....“.....	1,524,412	1,794,747	270,335	
Tullibee.....“.....	504,935	432,795		72,140
Catfish.....“.....	554,900	544,235		10,665
Carp.....“.....	1,152,049	1,108,763		43,286
Mixed and Coarse Fish.....“.....	3,357,748	3,067,410		290,338
Caviare.....“.....	7,057¼	5,744		1,313¼
Sturgeon Bladders.....No.....	4	438	434	
Pickrel (Blue).....lbs.....	2,391,729	3,379,524	787,795	
Total Pounds.....	38,145,458¼	38,501,533		
Total Increase, Pounds, 1920.....			356,074¾	

VALUE OF ONTARIO FISHERIES FROM 1901 TO 1920 INCLUSIVE

Years.	Value.	Years.	Value.
	\$ c.		\$ c.
1901.....	1,428,078 00	1911	2,419,178 21
1902.....	1,265,705 00	1912	2,842,877 09
1903.....	1,535,144 00	1913	2,674,686 76
1904.....	1,793,524 00	1914	2,755,293 11
1905.....	1,708,963 00	1915	3,341,181 41
1906.....	1,734,865 00	1916	2,658,993 43
1907.....	1,935,024 90	1917	2,866,424 00
1908.....	2,100,078 63	1918	3,175,110 32
1909.....	2,237,544 41	1919	2,721,440 24
1910.....	2,348,269 57	1920	2,691,093 74

STATEMENT OF THE NUMBER AND VALUE OF THE TUGS, GASOLINE, SAIL OR ROW BOATS, NETS, SPEARS, ETC., USED IN THE FISHING INDUSTRY OF THE PROVINCE OF ONTARIO DURING THE YEAR 1920.

	Number	Value
		\$
Tugs (3,624 tons).....	124	777,857
Gasoline Launches.....	803	44,206
Sail or Row Boats.....	1,088	64,666
Gill Nets.....	5,501,827 yards	766,788
Seines (31,718 yards).....	168	29,668
Pound Nets.....	1,080	775,435
Hoop Nets.....	1,442	83,140
Dip or Roll Nets.....	29	255
Baited Hooks.....	64,330	6,163
Spears.....	122	410
Freezers and Ice Houses.....	443	226,420
Piers and Wharves.....	275	94,963
Total.....		3,269,971

Number of men employed on Tugs.....	691
“ “ “ “ Gasoline Launches.....	1,615
“ “ “ “ Sail or Row Boats.....	1,387
Total.....	3,693

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the fishing industry during the year 1921, in the Public

District	Fishing Material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Kenora and Rainy River</i>			\$			\$			\$			\$
1 Lake of the Woods.	2	43	9,000	6	40	15,575	58	30	2,095	7	69,225	11,884
2 Rainy Lake.	2	17	1,300	5	24	9,290	35	25	1,270	7	40,200	7,735
3 Manitou, Little Turtle, Kai- orskons, Yoke and Elbow					1	400	1	2	80	2	5,100	1,200
4 Trout, Clearwater, Pickerel, Pipestone and Noamicon					5	2,925	11	6	230	3	12,800	2,000
5 Sturgeon, Loon, Jackfish, Crashed Pine and Vista								5	235	7	5,750	700
6 Sturgeon, Lac Seul, Eagle, Crow and Vermillion.	1	18	6,000	2	17	9,500	27	8	530	4	29,930	4,650
7 Pipestone, Wabigoon, Shoal, Obabicon and Stormy.	2	18	1,700	4	8	4,050	11	3	110	1	22,500	3,600
8 Shikog, Feegan, Basketh, Minnitakie and Abraham					1	400	2	4	180	4	6,500	1,175
9 McKenzie, Stanghikini, Bear, Indian and Orang Outang					6	1,490	8	1	75	1	14,200	2,180
10 Star, Keyes, Cedar, Sutana, Rock and Clay.					1	300	1	6	375	6	8,530	2,205
	7	96	18,000	17	103	43,930	154	90	5,180	42	214,735	37,329

Return of the kinds, quantities and values of fish caught

District	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickel or Dore
<i>Kenora and Rainy River</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Lake of the Woods.				80,085		6,991	210,340	348,443
2 Rainy Lake.				45,415		80	106,853	108,449
3 Manitou, Little Turtle, Kaiorskons, Yoke and Elbow.				8,055	978	8,252	2,742	2,642
4 Trout, Clearwater, Pickerel, Pipestone and Namicon.				26,619		6,020	22,550	191,340
5 Sturgeon, Loon, Jackfish, Crashed Pine and Vista.				2,243		671	6,683	3,496
6 Sturgeon, Lac Seul, Eagle, Crow and Vermillion.				128,781		34,163	59,122	179,039
7 Pipestone, Wabigoon, Shoal, Obabicon and Stormy.				65,125		19,489	26,124	106,665
8 Shikog, Feegan, Basket, Minnitakie and Abraham.				3,796		548	11,308	23,629
9 McKenzie, Stanghikini, Bear, Indian and Orang Outang.				7,648		2,100	1,357	4,610
10 Star, Keyes, Cedar, Sutana, Rock and Clay.			700	16,897		2,028	4,091	3,864
Totals.			700	384,664	978	80,342	451,170	972,177
Values.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
			70 00	38,466 40	97 80	8,034 20	22,558 50	97,217 70

FISHERIES

quantity and value of all fishing materials and other fixtures employed in the Waters of Kenora and Rainy River Districts.

Fishing Material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
			30	6,700	33	1,730							25	9,070	27	5,725
			17	6,450									26	5,400	11	1,220
													2	300		
			5	1,600									6	850	3	225
													1	50	1	25
			2	1,000	10	1,000							14	5,025	10	4,460
													6	1,850	7	870
													2	600	2	200
													5	900	5	500
													2	200	2	125
			54	15,750	43	2,730							89	24,245	68	13,350

during the year 1921, in the Public Waters of Kenora and Rainy River Districts.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickeral (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
665		1,194	37,949	51,062	7,305	32,433				62,115 84
		6,348	33,352		280	45,380				25,152 21
525						6,950	25			2,495 80
652		123	22,237			33,612				26,292 18
		200	500			4,909				1,217 51
			8,460			20,365				38,476 60
			2,747			15,759				21,229 28
			100			7,000				3,648 70
			2,857							1,675 07
			8,452							3,060 57
1,842		7,865	116,654	51,062	7,585	166,408	25			185,363 76
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
221 04		629 20	6,999 24	4,084 96	303 40	6,656 32	25 00			185,363 76

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1921,

District	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
Lake Superior			\$			\$			\$			\$
1 Pigeon River to Sturgeon Point and Whitefish Lake					3	1,250	5	3	125	3	39,000	4,100
2 Thunder Bay	4	122	27,000	20	11	7,500	26	8	475	11	199,970	26,350
3 Black Bay and Point Mag- net					6	3,075	7	4	840	6	23,300	3,725
4 Crayfish, Arrow, North Lake and Shaganash Is- lands								4	315	5	5,300	865
5 Rossport and Wilson Island	4	89	12,000	12	7	3,325	14	8	435	5	106,345	26,175
6 Jackfish and Port Caldwell	1	18	2,000	3	1	400	2	3	225	3	5,000	750
7 Lake Nipigon	7	203	29,000	44	6	12,000	18	3	210	...	108,000	12,325
8 Gros Cap, Goulais Bay and Batchawana Bay	1	14	4,000	4	6	2,120	11	13	685	20	44,070	4,330
9 Gargantua, Mamainse Point and Michipicoten	4	130	22,500	30	5	4,600	15	2	180	4	197,200	19,250
Totals	21	576	96,500	113	45	34,270	98	48	3,490	57	728,185	97,870

Return of the kinds, quantities and values of fish caught

District	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickarel or Dore
<i>Lake Superior</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Pigeon River to Sturgeon Point and Whitefish Lake				11,075	800	55,047	25	1,095
2 Thunder Bay	276,535	403,051		102,828	115	175,593	15,802	68,717
3 Black Bay and Point Magnet		15,000		29,177		9,779	9,875	18,560
4 Crayfish, Arrow, North Lake and Shaganash Islands		335	200	3,124	300	17,446	2,040	100
5 Rossport and Wilson Islands		2,000		31,325	86,859	204,866	8,324	2,883
6 Jackfish and Port Caldwell		3,040		18,107		44,688		100
7 Lake Nipigon				1,168,200		427,825	7,810	91,765
8 Gros Cap, Goulais Bay and Batchawana Bay		1,400		42,996	250	82,234	3,081	12,508
9 Gargantua, Mamaine Point and Michipicoten				90,457	2,900	495,464	7,020	3,480
Totals	276,535	424,826	200	1,497,289	91,224	1,512,942	53,977	199,208
Values	\$ c. 13,826 75	\$ c. 21,241 30	\$ c. 20 00	\$ c. 149,728 90	\$ c. 9,122 40	\$ c. 151,294 20	\$ c. 2,698 85	\$ c. 19,920 80

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake Superior.

Fishing material											Other fixtures used in fishing				
Seines		Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	
		\$		\$		\$		\$		\$		\$		\$	
			2	2,500	1	60					1	50	1	50	
			4	2,000							2	1,600	6	1,625	
											2	1,900	2	300	
			2	400							3	225			
			13	4,300							3	2,100	4	750	
			2	1,800											
			10	2,500											
			15	5,650				2,100	75		3	540	1	100	
			14	7,000				2,500	125		4	2,600	3	1,450	
			62	26,150	1	60		4,600	200		18	9,015	17	4,275	

during the year 1921, in the Public Waters of Lake Superior.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
						7,299				7,094 91
						7,949				69,812 66
532					5,462	46,235				9,127 07
			300			3,250				2,383 75
						1,500				33,169 50
4,468										6,977 66
20,775							140			171,802 50
330						3,940	25		15,504	15,175 29
200						2,786				59,716 54
26,305			300		5,462	72,959	165		15,504	375,259 88
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
3,156 60			18 00		218 48	2,918 36	165 00		930 24	375,259 88

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1921, in the Public

District	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake Huron, North Channel.</i>			\$			\$			\$			\$
1 Bruce Mines, St. Joseph's Island.....					1	250	2	6	310	8	11,375	865
2 Thessalon and Nesterville.....					5	2,950	13	14	800	17	27,516	3,835
3 Algoma Mills, Blind River, Pecard and Spragge.....	1	24	7,000	6	6	4,200	16	13	1,520	11	11,360	1,554
4 Spanish.....	1	27	3,500	3	7	2,950	14	15	985	13	33,940	3,952
5 Mississauga Sts., Cockburn, and Duck Islands.....	4	90	28,000	20	1	800	.....	1	50	2	99,600	5,250
6 Providence, South Bays, and Fitzwilliam Island.....	3	64	12,000	17	10	5,940	23	4	290	6	206,500	20,775
7 Killarney, Squaw Island and Wekwemikong Bay.....	4	89	37,000	20	15	11,025	26	6	248	6	191,800	35,215
8 Manitowaning and Sheguindah Bay, Lake Manitou.....					3	3,200	6	1	75	2	2,000	200
9 Little Current, Kagawong, and Mindemoya.....	3	59	10,000	13	5	4,650	8	13	685	7	40,500	2,505
10 Gore Bay, Meldrum Bay and Berry Island.....	5	153	40,700	23	3	1,640	5	10	490	6	146,450	16,745
Totals.....	21	506	138,200	102	56	37,605	113	83	5,453	78	771,041	90,896

Return of the kinds, quantities and values of fish caught

District	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickeral or Dore
<i>Lake Huron, North Channel.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Bruce Mines, St. Joseph's Island.....	100	100	50	1,801	800	7,059	7,733	1,315
2 Thessalon and Nesterville.....				35,529	500	61,776	11,157	5,873
3 Algoma Mills, Blind River, Pécord and Spragge.....		7,235		27,879		24,817	24,813	67,455
4 Spanish.....	540	11,579		4,293		7,534	27,097	39,411
5 Mississauga Straits, Cockburn and Duck Islands.....				58,800		464,731		
6 Providence, South Bays and Fitzwilliam Island.....			600	19,535	2,754	399,613	6,008	209
7 Killarney, Squaw Island and Wekwemikong Bay.....			100	331,190	56	260,677	21,158	16,667
8 Manitowaning and Sheguindah Bay, Lake Manitou.....				27,351		19,347	2,116	4,726
9 Little Current, Kagawong and Mindemoya.....	265	4,781		103,178		60,813	33,108	23,686
10 Gore Bay, Meldrum Bay and Berry Island.....		39	1,500	55,440	1,000	282,847	1,514	1,377
Totals.....	905	23,734	2,250	664,996	5,110	1,589,214	134,704	160,719
Values.....	\$ c. 45 25	\$ c. 1,186 70	\$ c. 225 00	\$ c. 66,499 60	\$ c. 511 00	\$ c. 158,921 40	\$ c. 6,735 20	\$ c. 16,071 90

FISHERIES

quantity and value of all fishing materials and other fixtures employed in the fishing Waters of Lake Huron, North Channel.

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
			1	500	2	60							4	360	2	400
			15	6,600	3	115							5	1,700	4	800
			27	13,900	5	265							5	2,900	5	5,500
			30	14,900									8	1,650	5	3,300
			16	14,900									1	400	1	500
			1	600					4,500	750						
			32	20,500									1	500	1	500
			14	7,000									1	200	1	1,500
			34	16,900									5	1,265	7	1,400
			24	15,000									4	1,300	4	3,100
			194	110,800	10	440			4,500	750			34	10,275	30	17,000

during the year 1921, in the Public Waters of Lake Huron, North Channel.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickeral (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
.....		650	.....	.....	50	3,000	.....	.....	.....	1,673 15
394	.....	764	.....	.....	4,187	34,478	.....	.....	.....	12,580 65
3,571	.....	1,561	500	.....	2,701	199,035	155	.....	.....	22,425 34
3,293	.....	1,922	.....	200	2,983	65,787	61	.....	.....	10,461 32
.....		.....	.....	.....	.....	.....	.....	.....	.....	52,353 10
.....		.....	49,661	.....	.....	16,703	.....	.....	.....	46,219 28
369	.....	571	.....	3,692	806	450	19	.....	.....	62,381 46
132	.....	695	.....	.....	.....	23,035	.....	.....	.....	6,241 04
3,702	.....	3,880	.....	40	30	58,199	.....	.....	.....	23,762 40
1,442	.....	1,820	.....	177	60	10,913	.....	.....	.....	35,065 77
12,903	.....	11,863	50,161	4,109	10,817	411,600	235	.....	.....	273,163 51
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,548 36	.....	949 04	3,009 66	328 72	432 68	16,464 00	235 00	.....	.....	273,163 51

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1921,

District		Fishing material											
		Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
		No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
Georgian Bay				\$			\$			\$		\$	
1	Parry Sound.....	5	164	27,000	27	19	17,825	42	18	1,785	32	417,850	42,945
2	Simcoe and Muskoka.....	1	24	8,000	5	20	9,620	34	29	1,665	38	160,900	14,610
3	Grey County.....	3	66	12,000	14	26	27,750	59	12	1,150	8	240,920	24,698
4	Bruce County.....	1	20	4,000	4	15	13,875	31	12	980	14	115,145	11,030
Total.....		10	274	51,000	50	80	69,070	166	71	5,580	92	934,815	93,283

Return of the kinds, quantities and values of fish caught during

District	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickarel or Dore
<i>Georgian Bay</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Parry Sound.....		3,387	2,065	470,880	900	273,455	49,455	18,530
2 Simcoe and Muskoka.....	2,750	19,580	2,950	57,048	8,330	92,316	36,882	19,979
3 Grey County.....		17,150		7,993	1,650	289,689		
4 Bruce County.....		20,885		14,494	7,100	253,506	476	42
Totals.....	2,750	61,002	5,015	550,415	17,980	908,966	86,813	38,551
Values.....	\$ c. 137 50	\$ c. 3,050 10	\$ c. 501 50	\$ c. 55,041 50	\$ c. 1,798 00	\$ c. 90,896 60	\$ c. 4,340 65	\$ c. 3,855 10

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Georgian Bay.

Fishing material												Other fixtures used in fishing					
Seines			Pound Nets		Hoop Nets		Rip or Roll Nets		Night Lines		Spears	Freezers and Ice Houses		Piers and Wharves			
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	
		\$		\$		\$		\$	Hooks.			\$		\$		\$	
1	100	25	12	86,700	1	30	.....		1,500	32	.....	9	6,950	11	4,225		
10	1,660	1,138	.....	.....	52	1,240	.....		9,900	5,875	.....	7	1,220	4	1,235		
1	30	25	3	2,500	.....	.....	.....		11,600	1,560	.....	6	875	8	1,425		
.....	.....	.....	.....	.....	.....	.....	.....		6,900	925	.....	9	3,360	11	1,600		
12	1,790	1,188	15	89,200	53	1,270	.....		29,900	8,392	.....	31	12,405	34	8,485		

the year 1921, in the Public Waters of Georgian Bay.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c
1,469	2,006	2,500	12,173	.....	.....	.....	80,148 78
1,055	3,385	1,800	11,313	66,214	121,441	20	.....	.....	29,959 54
.....	50	10,370	.....	.....	600	.....	.....	.....	31,440 90
105	1,000	70,150	500	13	4,096	.....	.....	.....	33,088 21
2,629	4,435	82,320	13,819	68,727	138,310	20	.....	.....	174,637 43
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
315 48	354 80	4,939 20	1,105 52	2,749 08	5,532 40	20 00	.....	.....	174,637 43

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1921,

District	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake Huron (Proper)</i>			\$			\$			\$			\$
1 Bruce County.....	5	110	20,000	28	13	9,800	27	10	1,790	13	347,460	32,080
2 Huron County.....					11	7,375	22				87,200	14,200
3 Lambton(including St. Clair River).....					22	10,050	43	20	1,345	16		
Totals.....	5	110	20,000	28	46	27,225	92	30	3,135	29	434,660	46,280

Return of the kinds, quantities and values of fish caught

District	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickrel or Dore
<i>Lake Huron (Proper)</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Bruce County.....	4,400	22,244	6,350	26,998	11,595	585,945	1,099	645
2 Huron County.....		10,604			500	82,911	3,000	250
3 Lambton (including St. Clair River).....	1,700	71,043	.....	43,145	.....	9,226	2,968	124,328
Totals.....	6,100	103,891	6,350	70,143	12,095	678,082	7,067	125,223
Values.....	\$ c. 305 00	\$ c. 5,194 55	\$ c. 635 00	\$ c. 7,014 30	\$ c. 1,209 50	\$ c. 67,808 20	\$ c. 353 35	\$ c. 12,522 30

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the
in the Public Waters of Lake Huron. (Proper)

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks.	Value	No.	Value	No.	Value	No.	Value
	\$			\$		\$		\$		\$		\$		\$		\$
			2	600									13	3,075	8	1,090
													7	725		
7	810	615	64	36,575	2	100							12	2,440	2	250
7	810	615	66	37,175	2	100							32	6,240	10	1,340

during the year 1921, in the Public Waters of Lake Huron. (Proper)

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
28		4,634	112,773			547				71,702 79
		109,509	8,275			13,810				18,855 92
8,260		12,993		481	3,518	87,568	4,713		546	31,913 77
8,288		127,136	121,048	481	3,518	101,925	4,713		546	122,472 48
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
994 56		10,170 88	7,262 88	38 48	140 72	4,077 00	4,713 00		32 76	122,472 48

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1921,

District	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake St. Clair, Etc.</i>			\$			\$			\$			\$
1 Kent County (Including River Thames).....					34	16,040	40	55	4,405	63		
2 Essex County.....					28	10,395	24	34	4,640	22		
3 Detroit River.....					1	150	2	21	595	36		
Totals.....					63	26,585	66	110	9,640	121		

Return of the kinds, quantities and values of fish caught

District	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickeral or Dore
<i>Lake St. Clair, etc.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Kent County (Including River Thames).....		300		2,200			34,123	26,102
2 Essex County.....		25		200			14,922	10,096
3 Detroit River.....							5,950	1,400
Total.....		325		2,400			54,995	37,598
Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		16 25		240 00			2,749 75	3,759 80

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake St. Clair, etc.

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
31	4,802	4,205			131	15,510			300	30			35	9,675	26	6,350
8	2,225	1,500	6	2,125	87	10,725			1,100	155	1	300	19	8,775	7	875
25	3,227	1,962					1	2	600	55						
64	10,254	7,667	6	2,125	218	26,235	1	2	2,000	240	1	300	54	18,450	33	7,225

during the year 1921, in the Public Waters of Lake St. Clair, etc.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickeral (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
10,320		89,004		41,890	182,368	269,239	3,741			32,852 15
1,565		41,650		24,458	68,109	152,356	60		160	21,077 34
		650		1,210	66,240	16,478				4,173 67
11,885		131,304		67,558	316,717	438,073	3,801		160	58,103 16
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
1,426 20		10,504 32		5,404 64	12,668 68	17,522 92	3,801 00		9 60	58,103 16

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1921,

District	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
Lake Erie												
1 Essex County.....	4	101	\$ 32,000	18	37	\$ 35,130	86	36	\$ 4,785	30	126,240	12,838
2 Kent County.....	4	123	24,400	13	55	44,750	139	32	4,822	1	85,500	6,815
3 Elgin County.....	23	793	216,964	141	21	13,225	82	23	3,031	18	741,260	100,030
4 Norfolk County.....	9	221	45,500	47	28	15,395	77	57	5,725	47	302,600	29,779
5 Haldimand (including Grand River)	9	198	53,600	44	12	8,400	32	37	5,250	40	229,000	24,100
6 Welland County (including upper Niagara River)....					2	1,200	7	15	800	18	17,900	1,475
Totals.....	49	1,436	372,464	263	155	118,100	423	200	24,413	154	1,502,500	175,037

Return of the kinds, quantities and values of fish caught during

District	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickarel or Dore
<i>Lake Erie</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Essex County.....		37,413		247,634			5,137	80,330
2 Kent County.....		203,861		72,803			758	119,925
3 Elgin County.....		1,129,730	1,851	200,838			2,650	89,159
4 Norfolk County.....		2,351,442		100,561		391	84,722	6,093
5 Haldimand County (including Grand River).....		1,479,714		335,433		246	945	14,654
6 Welland County (including upper Niagara River).....		23,140		7,379			2,480	860
Totals.....		5,225,300	1,851	964,648		637	96,692	311,021
Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		261,265 00	185 10	96,464 80		63 70	4,834 60	31,102 10

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Erie.

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$				\$
10	2,675	2,530	202	117,100	10	5,025			725	85			28	18,525	9	2,400
5	1,675	950	223	193,900			3	10					41	79,900	24	8,850
			127	78,350			3	15	1,570	629			25	28,305	12	6,893
31	11,900	8,115	12	8,500	22	475			700	413			17	9,500	15	4,130
5	640	955	58	30,300			6	142	600	300			11	5,000	6	1,260
			6	3,000			9	77	4,200	180			2	150		
51	16,890	12,550	628	431,150	32	5,500	21	244	7,795	1,607			124	141,380	66	23,533

the year 1921, in the Public Waters of Lake Erie.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c
	14,455	390,270		11,541	69,046	516,315			457,192	119,360 24
		784,573		6	36,416	272,147			2,533,984	256,651 63
		500,671	68	21,916	928	61,099			2,504,136	280,344 08
	29	179,877		10,850	147,638	114,925			376,180	180,847 08
	10	91,126		457	51,817	106,200			453,386	149,917 73
	610	18,381		812	39,582	850			41,676	7,819 18
	15,104	1,964,898	68	45,582	345,427	1,071,536			6,366,554	994,939 94
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
	1,510 40	157,191 84	4 08	3,646 56	13,817 08	42,861 44			381,993 24	994,939 94

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1921, in the Public

		Fishing material										
District	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
Lake Ontario.												
1 Lincoln County.....			\$		16	6,505	27	7	305	16	53,050	6,805
2 Wentworth County.....					5	3,200	10	6	400	9	43,200	5,885
3 Halton County.....					13	7,500	20	4	180	7	78,500	11,080
4 Peel County.....					2	1,200	5	1	35	3	12,000	1,700
5 York County.....					12	5,075	18	7	550	9	41,500	8,468
6 Ontario County.....					15	5,750	27	3	70	3	63,800	5,570
7 Durham County.....					22	13,000	44	1	100	2	154,500	15,265
8 Northumberland County.....					29	12,650	53	14	895	24	124,800	13,300
9 Prince Edward County.....					84	33,255	160	101	3,925	161	468,595	49,241
10 Bay of Quinte.....					69	24,000	138	144	7,897	237	418,450	36,225
11 Lennox and Addington.....												
Counties.....					11	2,800	17	3	150	4	67,600	5,504
12 Frontenac County.....					12	3,675	17	31	1,231	41	42,000	4,220
Totals.....					290	118,610	536	322	15,738	516	1,567,995	163,263

Return of the kinds, quantities and values of fish caught.

District	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickrel or Dore
<i>Lake Ontario.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Lincoln County.....		45,470		21,852		104,308	374	150
2 Wentworth County.....		25,400		29,200	400	9,350		825
3 Halton County.....	296	63,727		38,171	495	29,910	550	
4 Peel County.....		6,000		4,000		46,000	200	
5 York County.....		16,166		60,742		11,425		
6 Ontario County.....		961		86,161	200	3,493		
7 Durham County.....		1,000		188,620	1,000	19,230	320	
8 Northumberland County.....	500	10,305		217,842	40	49,999	21,950	100
9 Prince Edward County.....	1,025	271,327	3,868	734,179	26,311	184,739	39,391	1,959
10 Bay of Quinte.....	350	562,860	5,920	626,654	257	16,914	144,203	66,231
11 Lennox and Addington Counties.....		7,909		121,005		34,219	1,500	1,700
12 Frontenac County.....	15	3,294	700	28,560	840	19,715	24,655	2,340
Totals.....	2,186	1,014,419	10,488	2,156,986	29,543	529,302	233,143	73,305
Values.....	\$ c. 109 30	\$ c. 50,720 95	\$ c. 1,048 80	\$ c. 215,698 60	\$ c. 2,954 30	\$ c. 52,930 20	\$ c. 11,657 15	\$ c. 7,330 50

FISHERIES

quantity and value of all fishing materials and other fixtures employed in the fishing Waters of Lake Ontario.

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
5	516	500							1,200	345			2	250		
2	400	200											1	1,000		
2	75	100											2	250	7	1,400
4	650	640													1	300
3	300	405							300	7						
1	400	200											6	875		
					26	1,030			1,200	30			5	225	1	300
2	225	125			148	5,270			5,468	487			32	4,285	7	630
1	7	10			408	12,785			4,790	151			8	1,285	6	250
					2	80			300	8						
1	10	25			117	4,145			2,700	71			8	1,350	7	910
21	2,583	2,205			701	23,310			15,958	1,099			64	9,520	29	3,790

during the year 1921, in the Public Waters of Lake Ontario.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
1,464	849	2,145		74	8,250	13,317	103		8,824	16,856 42
		1,125				1,475				5,396 50
						1,895			100	10,721 49
						4,000				6,158 00
	1,200					9,656				9,049 04
		76		654	1,011	5,884			502	9,413 77
					500	3,563				21,097 52
	4,775	3,100		3,100		43,259				31,661 71
324	22,285	6,705		38,148	19,310	71,011			8,700	120,162 41
	53,654	61,348	475	120,396	11,875	200,308			4,908	135,683 47
	2,280	140		30	225					16,413 45
	27,183	12,633		21,227	6,145	33,052				13,608 68
1,798	112,226	87,272	475	183,629	62,867	415,850	103		23,034	396,222 46
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
215 76	11,222 60	6,981 76	28 50	14,690 32	2,514 68	16,634 00	103 00		1,382 04	396,222 46

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1921,

District	Fishing Material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Inland Waters</i>			\$			\$			\$			\$
1 Frontenac County.....								27	895	44		
2 Lanark and Leeds Counties.....					41	13,430	54	10	325	12		
3 Grenville, Dundas, Stormont and Glengary Counties.....					15	1,800	15	23	444	5		
4 Prescott, Russell, Carleton and Renfrew Counties.....	3	9	5,400	6	9	1,750	10	50	968	40	2,802	535
5 Peterborough and Victoria Counties.....					6	1,375	9	22	525	33		
6 Lake Simcoe.....					5	2,950	17	10	500	8		
7 Lake Nipissing.....					4	3,025	11					
8 Temiskaming and Nipissing Districts.....					6	4,000	15	13	1,150	11	25,150	5,366
Totals.....	3	9	5,400	6	86	28,330	131	155	4,807	153	27,952	5,901

Return of the kinds, quantities and values of fish caught

District	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickeral or Dore
<i>Inland Waters</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Frontenac County.....							19,208	
2 Lanark and Leeds Counties.....							5,992	
3 Grenville, Dundas, Stormont and Glengarry Counties.....							800	
4 Prescott, Russell, Carleton and Ren- frew Counties.....							6,635	2,216
5 Peterborough and Victoria Counties..		2,500					10,751	
6 Lake Simcoe.....				2,013		9,289		
7 Lake Nipissing.....		11,999		22,621			30,577	99,376
8 Temiskaming and Nipissing Districts	350	9,179	200	23,504	100	1,519	45,305	47,208
Totals.....	350	23,678	200	48,138	100	10,808	119,268	148,800
Values.....	\$ c. 17 50	\$ c. 1,183 90	\$ c. 20 00	\$ c. 4,813 80	\$ c. 10 00	\$ c. 1,080 80	\$ c. 5,963 40	\$ c. 14,880 00

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the in Inland Waters.

Fishing Material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
8	80	310			72	3,390			600	21			2	270		
3	60	300			100	3,720			2,900	185						
					1	35	1	2	3,585	86			3	300	1	100
					79	1,642	1	2	6,825	167			32	990		
6	218	416			95	2,320	9	24					4	250		
8	1,900	3,850			7	95	8	50			115	701	105	3,828	3	1,500
			17	6,400									2	1,450	3	1,500
			10	2,800	31	690							6	1,950	1	300
25	2,258	4,876	27	9,200	385	11,892	19	78	13,910	459	115	701	154	9,038	8	3,400

during the year 1921, in Inland Waters.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and Coarse Fish	Caviare	Sturgeon Bladders	Pickeral (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
.....	10,621	5,685	.....	31,815	1,500	54,911	.....	.....	.....	7,278 94
1,510	10,444	2,220	.....	45,460	.....	39,805	.....	.....	.....	6,931 80
7,956	3,008	50	.....	1,225	1,100	300	46	.....	.....	1,499 52
.....	3,964	11,633	.....	16,827	4,185	42,893	20	.....	100	5,135 67
.....	8,445	2,703	.....	36,347	2,400	51,595	.....	.....	.....	6,790 85
.....	.....	.....	.....	.....	250,521	53,143	.....	.....	.....	13,276 76
59,813	.....	.....	.....	.....	.....	14,400	1,857	.....	.....	23,939 06
.....	.....	173	.....	500	.....	43,049	.....	.....	.....	11,760 60
69,279	36,482	22,464	500	131,674	259,706	300,096	1,923	.....	100	76,613 20
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
8,313 48	3,648 20	1,797 12	30 00	10,533 92	10,388 24	12,003 84	1,923 00	.....	6 00	76,613 20

ONTARIO

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats fishing industry

Districts.	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
			\$			\$			\$			\$
1 Kenora and Rainy River Districts.....	7	96	18,000	17	103	43,930	154	90	5,180	42	214,735	37,329
2 Lake Superior.....	21	576	96,500	113	45	34,270	98	48	3,490	57	728,185	97,870
3 Lake Huron(North Channel)	21	506	138,200	102	56	37,605	113	83	5,453	78	771,041	90,896
4 Georgian Bay.....	10	274	51,000	50	80	69,070	166	71	5,580	92	934,815	93,283
5 Lake Huron (Proper).....	5	110	20,000	28	46	27,225	92	30	3,135	29	434,660	46,280
6 Lake St. Clair etc.....					63	26,585	66	110	9,640	121		
7 Lake Erie.....	49	1,436	372,464	263	155	118,100	423	200	24,413	154	1,502,500	175,037
8 Lake Ontario.....					290	118,610	536	322	15,738	516	1,567,995	163,263
9 Inland Waters.....	3	9	5,400	6	86	28,330	131	155	4,807	153	27,952	5,901
Totals.....	116	3,007	701,564	579	924	503,725	1,779	1,109	77,436	1,242	6,181,883	769,859

Recapitulation of the kinds, quantities and values

Districts.	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickarel or Dore
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Kenora and Rainy River Districts.....			700	384,664	978	80,342	451,170	972,177
2 Lake Superior.....	276,535	424,826	200	1,497,289	91,224	1,512,942	53,977	199,208
3 Lake Huron (North Channel).....	905	23,734	2,250	664,996	5,110	1,589,214	134,704	160,719
4 Georgian Bay.....	2,750	61,002	5,015	550,415	17,980	908,966	86,813	38,551
5 Lake Huron (Proper)...	6,100	103,891	6,350	70,143	12,095	678,082	7,067	125,223
6 Lake St. Clair etc.....		325		2,400			54,995	37,598
7 Lake Erie.....		5,225,300	1,851	964,648		637	96,692	311,021
8 Lake Ontario.....	2,186	1,014,419	10,488	2,156,986	29,543	529,302	233,143	73,305
9 Inland Waters.....	350	23,678	200	48,138	100	10,808	119,268	148,800
Totals.....	288,826	6,877,175	27,054	6,339,679	157,030	5,310,293	1,237,829	2,066,602
Values.....	\$ c. 14,441 30	\$ c. 343,858 75	\$ c. 2,705 40	\$ c. 633,967 90	\$ c. 15,703 00	\$ c. 531,029 30	\$ c. 61,891 45	\$ c. 206,660 20

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the during the year 1921.

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
			54	15,750	43	2,730							89	24,245	68	13,350
			62	26,150	1	60			4,600	200			18	9,015	17	4,275
			194	110,800	10	440			4,500	750			34	10,275	30	17,000
12	1,790	1,188	15	89,200	53	1,270			29,900	8,392			31	12,405	34	8,485
7	810	615	66	37,175	2	100							32	6,240	10	1,340
64	10,254	7,667	6	2,125	218	26,235	1	2	2,000	240	1	300	54	18,450	33	7,225
51	16,890	12,550	628	431,150	32	5,500	21	244	7,795	1,607			124	141,380	66	23,533
21	2,583	2,205			701	23,310			15,958	1,099			64	9,520	29	3,790
25	2,258	4,876	27	9,200	385	11,892	19	78	13,910	459	115	701	154	9,038	8	3,400
180	34,585	29,101	1,052	721,550	1,445	71,537	41	324	78,663	12,747	116	1,001	600	240,568	295	82,398

of fish caught during the year 1921.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	\$ c.
1,842		7,865	116,654	51,062	7,585	166,408	25		185,363 76
26,305			300		5,462	72,959	165	15,504	375,259 88
12,903		11,863	50,161	4,109	10,817	411,600	235		273,163 51
2,629		4,435	82,320	13,819	68,727	138,310	20		174,637 43
8,288		127,136	121,048	481	3,518	101,925	4,713	546	122,472 48
11,885		131,304		67,558	316,717	438,073	3,801	160	58,103 16
	15,104	1,964,898	68	45,582	345,427	1,071,536		6,366,554	994,939 94
1,798	112,226	87,272	475	183,629	62,867	415,850	103	23,034	396,222 46
69,279	36,482	22,464	500	131,674	259,706	300,096	1,923	100	76,613 20
134,929	163,812	2,357,237	371,526	497,914	1,080,826	3,116,757	10,985	6,405,898	2,656,775 82
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	
16,191 48	16,381 20	188,578 96	22,291 56	39,833 12	43,233 04	124,670 28	10,985 00	384,353 88	2,656,775 82

Comparative Statement of yield for 1920-21, according to Districts

	1920	1921	Increase	Decrease
Kenora and Rainy River Districts:				
Herring, Salted.....lbs.				
Herring, Fresh....."				
Whitefish, Salted....."	319,400	700		318,700
Whitefish, Fresh....."	398,115	384,664		13,451
Trout, Salted....."		978	978	
Trout, Fresh....."	123,232	80,342		42,890
Pike....."	449,457	451,170	1,713	
Pickrel (Dore)....."	649,044	972,177	323,133	
Sturgeon....."	9,330	1,842		7,488
Eels....."				
Perch....."	12,277	7,865		4,412
Tullibee....."	129,430	116,654		12,776
Catfish....."	52,992	51,062		1,930
Carp....."	9,441	7,585		1,856
Mixed and Coarse....."	191,209	166,408		24,801
Caviare....."	379	25		354
Sturgeon Bladders.....No.	198			198
Pickrel (Blue).....lbs.	5,316			5,316
Lake Superior:				
Herring, Salted.....lbs.	616,601	276,535		340,066
Herring, Fresh....."	1,286,953	424,826		862,127
Whitefish, Salted....."	200	200		
Whitefish, Fresh....."	1,704,733	1,497,289		207,444
Trout, Salted....."	145,700	91,224		54,476
Trout, Fresh....."	1,332,428	1,512,942	180,514	
Pike....."	15,271	53,977	38,706	
Pickrel (Dore)....."	118,779	199,208	80,429	
Sturgeon....."	30,607	26,305		4,302
Eels....."	20,496			20,496
Perch....."				
Tullibee....."	50	300	250	
Catfish....."				
Carp....."		5,462	5,462	
Mixed and Coarse....."	114,924	72,959		41,965
Caviare....."	202	165		37
Pickrel (Dore)....."	7,267	15,504	8,237	
North Channel, Lake Huron:				
Herring, Salted.....lbs.	155	905	750	
Herring, Fresh....."	24,173	23,734		439
Whitefish, Salted....."	552	2,250	1,698	
Whitefish, Fresh....."	902,703	664,996		237,707
Trout, Salted....."	967	5,110	4,143	
Trout, Fresh....."	1,107,771	1,589,214	481,443	
Pike....."	68,500	134,704	66,204	
Pickrel (Dore)....."	242,003	160,719		81,284
Sturgeon....."	13,804	12,903		901
Eels....."				
Perch....."	8,415	11,863	3,448	
Tullibee....."	20,712	50,161	29,449	
Catfish....."	1,730	4,109	2,379	
Carp....."	17,213	10,817		6,396
Mixed and Coarse....."	420,791	411,610		9,181
Caviare....."	138	235	97	
Georgian Bay:				
Herring, Salted.....lbs.	3,650	2,750		900
Herring, Fresh....."	49,282	61,002	11,720	
Whitefish, Salted....."	5,900	5,015		885
Whitefish, Fresh....."	445,351	550,415	105,064	

Comparative Statement of yield for 1920-1921, according to Districts—Continued.

	1920	1921	Increase	Decrease
Georgian Bay—Continued:				
Trout, Salted.....lbs.....	18,400	17,980		420
Trout, Fresh.....".....	972,158	908,966		63,192
Pike.....".....	44,164	86,813	42,649	
Pickere! (Dore).....".....	67,307	38,551		28,756
Sturgeon.....".....	2,655	2,629		26
Eels.....".....				
Perch.....".....	4,098	4,435	337	
Tullibee.....".....	76,274	82,320	6,046	
Catfish.....".....	2,415	13,819	11,404	
Carp.....".....	54,319	68,727	14,408	
Mixed and Coarse.....".....	43,383	138,310	94,927	
Caviare.....".....	30	20		10
Lake Huron (Proper):				
Herring, Salted.....lbs.....	7,700	6,100		1,600
Herring, Fresh.....".....	172,630	103,891		68,739
Whitefish, Salted.....".....	900	6,350	5,450	
Whitefish, Fresh.....".....	82,194	70,143		12,051
Trout, Salted.....".....	56,850	12,095		44,755
Trout, Fresh.....".....	790,168	678,082		112,086
Pike.....".....	4,995	7,067	2,072	
Pickere! (Dore).....".....	139,634	125,223		14,411
Sturgeon.....".....	9,176	8,288		888
Eels.....".....				
Perch.....".....	129,157	127,136		2,021
Tullibee.....".....	206,029	121,048		84,981
Catfish.....".....	227	481	254	
Carp.....".....	3,988	3,518		470
Mixed and Coarse.....".....	99,056	101,925	2,869	
Caviare.....".....	649	4,713	4,064	
Pickere! (Blue).....".....	2,176	546		1,630
Lake St. Clair, Etc.:				
Herring, Salted.....lbs.....				
Herring, Fresh.....".....	400	325		75
Whitefish, Salted.....".....				
Whitefish, Fresh.....".....	7,327	2,400		4,927
Trout, Salted.....".....				
Trout, Fresh.....".....				
Pike.....".....	107,576	54,995		52,581
Pickere! (Dore).....".....	26,968	37,598	10,630	
Sturgeon.....".....	13,004	11,885		1,119
Eels.....".....				
Perch.....".....	231,621	131,304		100,317
Tullibee.....".....				
Catfish.....".....	141,247	67,558		73,689
Carp.....".....	395,437	316,717		78,720
Mixed and Coarse.....".....	603,136	438,073		165,063
Caviare.....".....	526	3,801	3,275	
Pickere! (Blue).....".....	400	160		240
Lake Erie:				
Herring, Salted.....lbs.....				
Herring, Fresh.....".....	9,651,284	5,225,300		4,425,984
Whitefish, Salted.....".....	20,000	1,851		18,149
Whitefish, Fresh.....".....	818,304	964,648	146,344	
Trout, Salted.....".....				
Trout, Fresh.....".....	1,044	637		407
Pike.....".....	115,259	96,692		18,567
Pickere! (Dore).....".....	166,013	311,021	145,008	

Comparative Statement of yield for 1920-21, according to Districts—Continued

	1920	1921	Increase	Decrease
Lake Erie—Continued:				
Sturgeon.....lbs.....	267			267
Eels....."	38,742	15,104		23,638
Perch....."	1,272,181	1,964,898	692,717	
Tullibee....."		68	68	
Catfish....."	42,051	45,582	3,531	
Carp....."	431,864	345,427		86,437
Mixed and Coarse....."	900,491	1,071,536	171,045	
Pickrel (Blue)....."	3,354,523	6,366,554	3,012,031	
Lake Ontario:				
Herring, Salted.....lbs.....	3,650	2,186		1,464
Herring, Fresh....."	1,287,580	1,014,419		273,161
Whitefish, Salted....."	2,950	10,488	7,538	
Whitefish, Fresh....."	2,024,058	2,156,986	132,928	
Trout, Salted....."	3,350	29,543	26,193	
Trout, Fresh....."	458,663	529,302	70,639	
Pike....."	311,432	233,143		78,289
Pickrel (Dore)....."	36,551	73,305	36,754	
Sturgeon....."	500	1,798	1,298	
Eels....."	91,932	112,226	20,294	
Perch....."	107,383	87,272		20,111
Tullibee....."	300	475	175	
Catfish....."	170,215	183,629	13,414	
Carp....."	65,674	62,867		2,807
Mixed and Coarse....."	413,841	415,850	2,009	
Caviare....."	338	103		235
Sturgeon Bladders.....No.....	240			240
Pickrel (Blue).....lbs.....	9,842	23,034	13,192	
Inland Waters:				
Herring, Salted.....lbs.....	400	350		50
Herring, Fresh....."	39,052	23,678		15,374
Whitefish, Salted....."		200	200	
Whitefish, Fresh....."	71,033	48,138		22,895
Trout, Salted....."	800	100		700
Trout, Fresh....."	13,578	10,808		2,770
Pike....."	107,532	119,268	11,736	
Pickrel (Dore)....."	158,942	148,800		10,142
Sturgeon....."	109,628	69,279		40,349
Eels....."	26,408	36,482	10,074	
Perch....."	29,615	22,464		7,151
Tullibee....."		500	500	
Catfish....."	133,358	131,674		1,684
Carp....."	130,827	259,706	128,879	
Mixed and Coarse....."	280,579	300,096	19,517	
Caviare....."	3,482	1,923		1,559
Pickrel (Blue)....."		100	100	

STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO FOR THE YEAR 1921
AS FURNISHED BY THE FISHERMEN'S ANNUAL RETURNS

Kind of Fish	Quantity	Price	Value
Herring, Salted.....lbs.....	288,826	\$ 05	\$ 14,441 30
Herring, Fresh.....	6,877,175	05	343,858 75
Whitefish, Salted....."	27,054	10	2,795 40
Whitefish, Fresh....."	6,339,679	10	633,967 90
Trout, Salted....."	157,030	10	15,703 00
Trout, Fresh....."	5,310,293	10	531,029 30
Pike....."	1,237,829	05	61,891 45
Pickrel (Dore)....."	2,066,602	10	206,660 20
Sturgeon....."	134,929	12	16,191 48
Eels....."	163,812	10	16,381 20
Perch....."	2,357,237	08	188,578 96
Tullibee....."	371,526	06	22,291 56
Catfish....."	497,914	08	39,833 12
Carp....."	1,080,826	04	43,233 04
Mixed and Coarse....."	3,116,757	04	124,670 28
Caviare....."	10,985	1 00	10,985 00
Pickrel (Blue)....."	6,405,898	06	384,353 88
Totals.....			2,656,775 82

COMPARATIVE STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE.

	1920	1921	Increase	Decrease
Herring, Salted.....lbs.....	632,156	288,826		343,330
Herring, Fresh....."	12,511,354	6,877,175		5,634,179
Whitefish, Salted....."	349,902	27,054		322,848
Whitefish, Fresh....."	6,453,818	6,339,679		114,139
Trout, Salted....."	226,067	157,030		69,037
Trout, Fresh....."	4,799,042	5,310,293	511,251	
Pike....."	1,224,186	1,237,829	13,643	
Pickrel (Dore)....."	1,605,241	2,066,602	461,361	
Sturgeon....."	188,971	134,929		54,042
Eels....."	177,578	163,812		13,766
Perch....."	1,794,747	2,357,237	562,490	
Tullibee....."	432,795	371,526		61,269
Catfish....."	544,235	497,914		46,321
Carp....."	1,108,763	1,080,826		27,937
Mixed and Coarse....."	3,067,410	3,116,757	49,347	
Caviare....."	5,744	10,985	5,241	
Sturgeon Bladders.....No.....	438			438
Pickrel (Blue).....lbs.....	3,379,524	6,405,898	3,026,374	
Total Pounds.....	38,501,533	36,444,372		
Total Decrease, Pounds, 1921.....				2,057,161

VALUE OF ONTARIO FISHERIES FROM 1901 TO 1921 INCLUSIVE.

Years.	Value.	Years.	Value.
	\$ c.		\$ c.
1901.....	1,428,078 00	1911.....	2,419,178 21
1902.....	1,265,705 00	1912.....	2,842,877 09
1903.....	1,535,144 00	1913.....	2,674,686 76
1904.....	1,793,524 00	1914.....	2,755,293 11
1905.....	1,708,963 00	1915.....	3,341,181 41
1906.....	1,734,865 00	1916.....	2,658,993 43
1907.....	1,935,024 90	1917.....	2,866,424 00
1908.....	2,100,078 63	1918.....	3,175,110 32
1909.....	2,237,544 41	1919.....	2,721,440 24
1910.....	2,348,269 57	1920.....	2,691,093 74
		1921.....	2,656,775 82

STATEMENT OF THE NUMBER AND VALUE OF THE TUGS, GASOLINE, SAIL OR ROW BOATS, NETS, SPEARS, ETC., USED IN THE FISHING INDUSTRY OF THE PROVINCE OF ONTARIO DURING THE YEAR 1921.

	Number	Value
		\$
Tugs (3,007 tons).....	116	701,564
Gasoline Launches.....	924	503,725
Sail or Row Boats.....	1,109	77,436
Gill Nets.....	6,181,883 yards	709,859
Seines (34,585 yards).....	180	29,101
Pound Nets.....	1,052	721,550
Hoop Nets.....	1,445	71,537
Dip or Roll Nets.....	41	324
Baited Hooks.....	78,663	12,747
Spears.....	116	1,001
Freezers and Ice Houses.....	600	240,568
Piers and Wharves.....	295	82,398
Total.....		3,151,810

Number of men employed on Tugs.....	579
“ “ “ Gasoline Launches.....	1,779
“ “ “ Sail or Row Boats.....	1,242
	3,600

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Jas. G. Baillie Jr

June 18, 1931

Sixteenth Annual Report

Government
Publications

OF THE

GAME AND FISHERIES DEPARTMENT

1922

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:
Printed and Published by Clarkson W. James, Printer to the King's Most Excellent Majesty
1923

Sixteenth Annual Report

OF THE

GAME AND FISHERIES
DEPARTMENT

1922

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

Printed and Published by Clarkson W. James, Printer to the King's Most Excellent Majesty
1923



To His Honour HENRY COCKSHUTT, ESQ.,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Sixteenth Annual Report of the Game and Fisheries Department of this Province.

I have the honour to be

Your Honour's most obedient servant,

H. MILLS,

Minister of Mines.

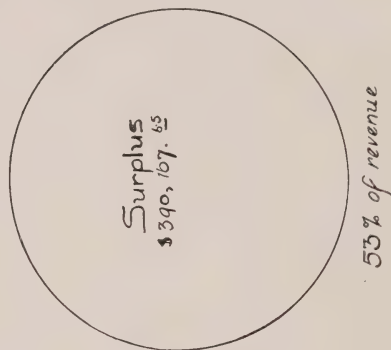
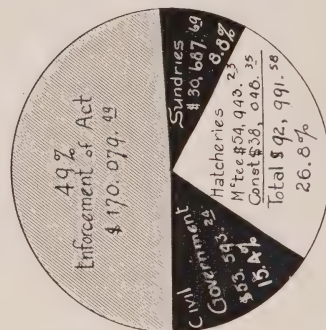
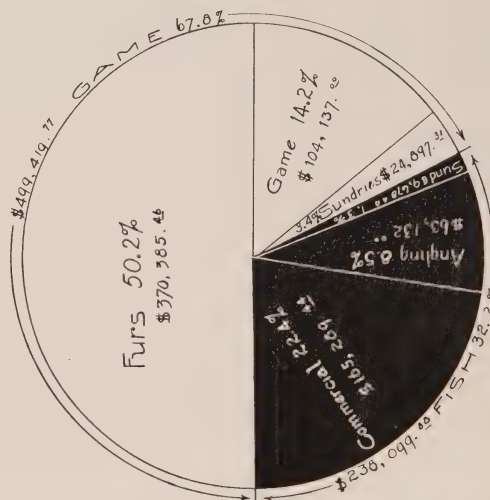
Toronto, 1923.

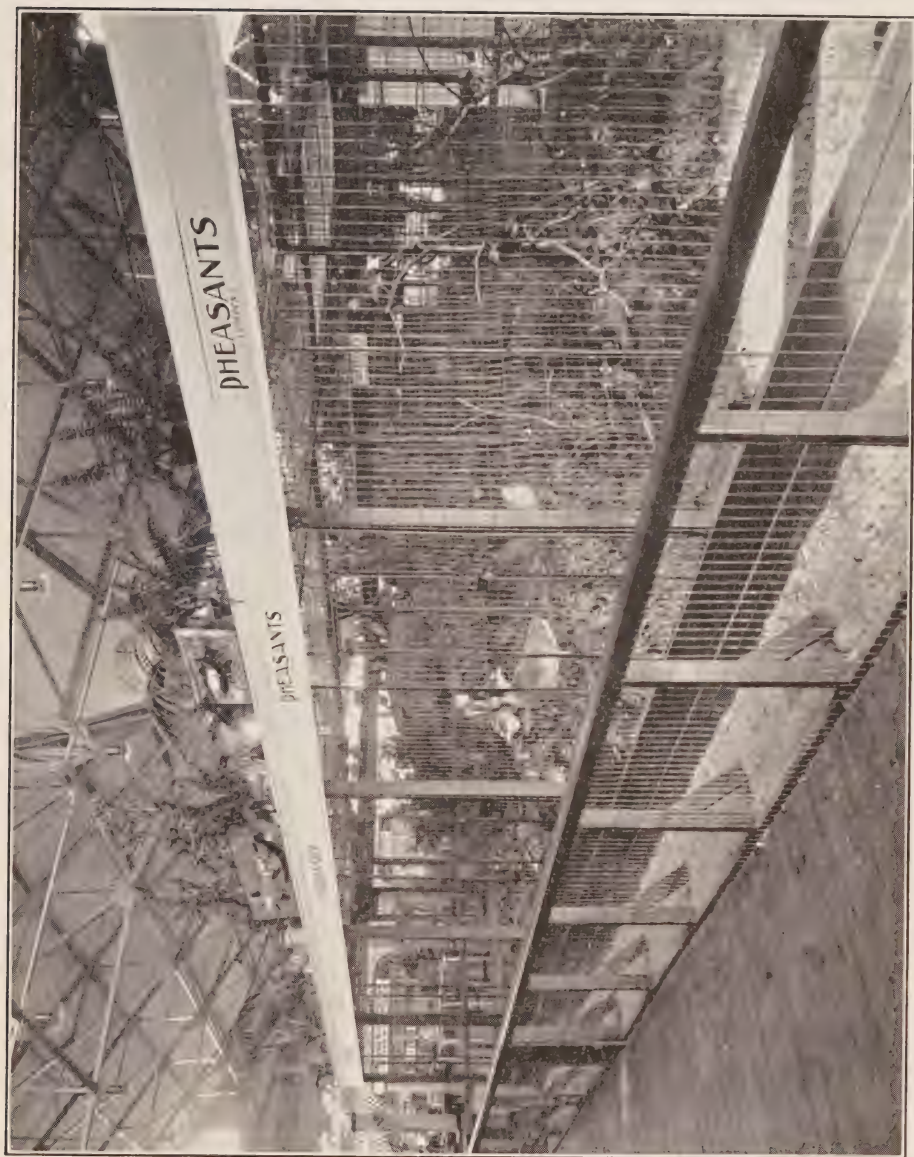
ONTARIO

GAME & FISHERIES.

—1921 - 2—

Revenues	Expenditures	Surplus
\$737,519. 65	\$347,352. 00	\$390,167. 65





PORTION OF EXHIBIT AT C. N. E., TORONTO

SIXTEENTH ANNUAL REPORT

OF THE

Game and Fisheries Department of Ontario

*To the Honourable H. MILLS,
Minister.*

SIR,—I have the honour to place before you the Sixteenth Annual Report of the work of the Game and Fisheries Department for the fiscal year ending the 31st day of October, 1922. The gross revenue received (aside from the receipts from the Sales Branch) amounted to \$737,519.65, and after deducting expenditures of both capital charges and ordinary expenses, a net surplus was obtained of \$390,167.65.

COMPARATIVE STATEMENT OF REVENUE AND EXPENDITURE, 1916-1922 INC., AS SHOWN IN THE PUBLIC ACCOUNTS.

	Revenue.	Expenditure.	Surplus.
1916.....	\$174,186 71	\$157,681 94	\$ 16,504 77
1917.....	219,442 94	154,055 17	65,387 77
1918.....	258,671 62	167,795 22	90,876 40
1919.....	346,197 14	185,247 72	160,949 42
1920.....	466,550 86	239,978 13	226,572 73
1921.....	612,972 86	287,608 87	325,363 99
1922.....	737,519 65	347,352 00	390,167 65

SALES BRANCH.

1922.....	\$24,825 39	\$52,133 05	.....
The Sales Branch was discontinued during the year.			

STATISTICS.

The figures and statements presented herein, furnishing statistics of the various branches within the Department, have been carefully prepared and provide very interesting and valuable information.

FISH.

The statistics of the commercial fisheries of the Province are shown in comparison as follows:—

	1920	1921	1922
Gill nets licensed (yards).....	5,501,827	6,181,883	6,239,582
Seines ".....	168	180	186
Pound nets ".....	1,080	1,052	1,285
Hoop nets ".....	1,442	1,445	1,282
Dip and Roll nets licensed.....	29	41	59
Spears ".....	122	116	151
Hooks ".....	64,330	78,663	85,865
Number of men employed.....	3,693	3,600	4,003
Number of tugs.....	124	116	101
Number of gasoline boats.....	803	924	946
Number of sail or row boats.....	1,088	1,109	1,181
Value of boats, ice-houses, wharves and twine.....	\$3,269,971 00	\$3,151,810 00	3,352,410 001
Aggregate catch in pounds.....	38,501,533	36,444,372	38,022,017
Value to fishermen.....	\$2,691,093 74	\$2,656,775 82	\$2,807,525 21

ANGLING.

The fee for non-resident angling permits was maintained at \$5.00, and all residents may angle without permit or charge, except on such territories as are legally prohibited. For the waters of Lake Nipigon and Nipigon River a special permit is required by both residents and non-residents. The fees collected for angling permits for the year amounted to \$63,132.00, as compared with \$56,565.00 for the previous year. The reports received from issuers of permits and from anglers throughout the province show that game fish of all kinds are plentiful and no doubt due credit must be given to the distribution of fry and fingerlings by the provincial hatcheries for the past few years.

HATCHERIES.

Since the year 1918, the Department has completed, equipped and maintained three large and modern hatcheries for the propagation of both commercial and game fish, with the result that the distribution of fry and fingerlings has correspondingly increased and the public waters are now showing the benefits of these expenditures with gratification to the anglers as well as those who are catering to the transportation and other needs of the tourist trade. In order that this work may be further extended, a most suitable site for a large hatchery has been secured in the eastern part of the Province near the town of Picton, in Prince Edward county. The property includes what is known as the "Lake-on-the-Mountain," which provides an ample and admirable water supply by gravity. This hatchery will fill a long felt need for the supply of game fish throughout the eastern part of the Province at the least possible transportation costs.

A detailed report of the waters stocked will be shown elsewhere in this report, and the summary which is here shown can be considered very satisfactory, as compared with the previous year:—

	1921	1922
Whitefish Fry.....	115,950,000	189,775,000
Pickeral Fry.....	27,625,000	43,510,000
Salmon Trout Fry.....	110,400	7,815,000
Steel Head Salmon Fry.....		5,300
Herring Fry.....	9,740,000	26,250,000
Rainbow Trout Fry.....		21,000
Speckled Trout Fingerlings and Fry.....	1,147,500	2,184,075
Black Bass Fingerlings and Fry.....	773,500	613,500
Parent Black Bass.....	742	937
	155,347,142	270,174,812

The demand for fry and fingerlings increases year by year, and the demand exceeds the available supply in spite of the increased deliveries, which are summarized since the year 1912, as follows:—

1912.....	150,000	1918.....	58,356,631
1913.....	173,815	1919.....	22,361,748
1914.....	598,630	1920.....	77,783,360
1915.....	1,697,425	1921.....	155,347,142
1916.....	1,570,450	1922.....	270,174,812
1917.....	2,156,928		

GAME SANCTUARIES.

During the year an additional area was set aside as a game sanctuary under the authority of an Order-in-Council, and a complete list of all areas set aside by this Department is shown, as follows:—

Miner Farm Sanctuary.....	Essex County.
Peasemarsch Farm Sanctuary.....	Grey County.
Nopiming Game Sanctuary.....	Carleton and Renfrew Counties.
Eugenia Fish and Game Preserve.....	Grey County.
Peel Game Preserve.....	Peel County.

The wild life of the Province of Ontario is considered, and has been definitely determined as one of the most valued assets of the Province, which must be protected, but not, however, to the exclusion of the pleasure of the sportsmen or the out-of-door enthusiast. As the population increases and the advance of civilization encroaches the covers and protective areas of all wild life, a proprietorial condition arises, that, of necessity, upsets the balance in nature, and the Department is forced to adopt various measures by which the perpetuity of wild life may be insured. Certain sections of the province with natural cover for fish and game, have, of recent years, been made more accessible to the fishermen and hunters through the development of the automobile. This fact, together with the increased number of anglers and sportsmen, naturally calls for the establishment of more or less drastic measures and a strict enforcement of the Act, for the perpetuity of wild life, and it is such a condition that necessitates a close or extended close seasons upon our fish, game birds and animals when threatened with extermination, a cutting of bag limits, and the limiting of a season's kill or catch, the establishment and maintenance of Crown Game and Fish preserves, and any other means and methods that would be in the interests of wild-life preservation.

Further suitable areas set aside as sanctuaries would be in the best interests of conservation. Some improvement and development work has been carried on at the Eugenia preserve with provisions made for the care of birds, animals and equipment necessary for the display at the Canadian National Exhibition each year, as well as work carried on for the collection of speckled trout spawn and the rearing of English ringnecked pheasants. Approximately 3,000 pheasant eggs were produced, some of which were hatched on the preserve and a number of settings were furnished to sportsmen and farmers in various parts of the Province, with a view of establishing these fine game birds in various sections by what is considered to be the most effective method. Most of the birds reared on the preserve were kept for further propagation work, while a few were allowed full liberty in order that it could be determined whether these birds could be successfully established in most parts of the Province. All pheasant eggs distributed and birds derived therefrom remain the property of the Crown, and are subject to all the provisions of the Act and its regulations.

PLANTING OF WILD RICE.

During the year a further supply of wild rice was furnished to each district warden, who instructed his overseers in regard to the waters in which same would be sown, and this work, which has been carried on for a number of years, has met with the full support and appreciation of the local game associations. A continuance of this policy would be advisable in view of the success attained and the benefits resulting therefrom.

GAME.

Deer are still reported to be quite plentiful, although any relaxation in the enforcement of the Act or in the present laws would seriously effect the continued supply.
Moose would appear to be less numerous, and the number of moose licenses sold has decreased.

A comparison of the number of deer and moose licenses sold for three years is as follows:—

	1920	1921	1922
Resident Moose.....	1,988	1,989	1,584
Resident Deer.....	16,943	18,689	20,504
Non-resident Hunting.....	796	950	1,256

Ruffed Grouse, commonly known as partridge, are reported as being quite plentiful in all sections where they are usually found, and large numbers were taken by sportsmen.

Quail are still protected by an entire close season, and are reported in fair numbers in the counties of Essex and Kent.

Pheasants are still protected by an entire close season, and are reported in fair numbers throughout the Niagara peninsula.

Ducks and *Geese* are still plentiful and the season has been a satisfactory one.

FURS.

The catch of fur-bearing animals continues to increase owing to the large number of trappers under license, although some varieties of animals are reported as becoming scarcer.

Beaver continue to be taken in large numbers, but are reported as becoming scarce.

Otter have been taken in approximately the same number, but are reported as becoming scarce.

Fisher and *Marten* are reported as being scarce.

Muskrat were taken in approximately the same number as in the year previous.

COMPARISON OF PELTS EXPORTED AND TANNED FOR THE YEARS OF 1920-1-2.

	1920	1921	1922
Beaver.....	96,006	95,479	93,971
Otter.....	4,094	4,759	5,309
Fisher.....	4,069	2,602	2,657
Marten.....	6,315	6,533	7,327
Mink.....	33,695	42,667	78,487
Muskrat.....	434,066	479,866	554,888
Bear.....	409*	1,494	2,137
Fox (Cross).....	39*	287	469
Fox (Red).....	231*	5,282	11,272
Fox (Silver or Black).....	11*	153	87
Fox (White).....	...	351	1,765
Fox (not specified).....	240*	23	170
Lynx.....	170*	591	836
Raccoon.....	321*	11,951	20,344
Skunk.....	1,082*	47,121	73,219
Weasel.....	3,095*	58,898	94,399
Wolverine.....	.....	12	6
	583,843	758,069	947,343

The figures marked with (*) cover a period of only five months of the year 1920. The estimated value to the trapper for the pelts taken in 1922, based on an average of the prices paid for the year, is \$4,489,288.79.

FUR-FARMING.

Fur-farming permits were issued for 141 farms, which are stocked with:—

Beaver.....	4	Mink.....	94
Fisher.....	3	Opossum.....	6
Cross Fox.....	270	Raccoon.....	50
Red Fox.....	206	Skunk.....	82
Silver and Black Fox....	1,088		
Lynx.....	2		1,805

ENFORCEMENT OF ACT.

The enforcement of the Act by the wardens, special patrol officers and overseers was carried out generally with efficiency, and in the best interests of conservation. The earnest co-operation of the public and sportsmen is sought to bring about a better understanding in regard to the Department's efforts and to conserve all game and fish.

SUMMARY OF CONVICTIONS, FINES AND CONFISCATIONS FOR THE YEAR.

Convictions.....	982
Fines collected.....	\$18,340 91
Sale of confiscations.....	12,907 91

ARTICLES CONFISCATED.

PELTS.	GAME AND FISH.
1,634 Muskrat pelts	4 Live Squirrel
768 Beaver "	2 Live Coon
499 Mink "	319 Partridge
427 Weasel "	103 Ducks
229 Skunk "	18 Rabbits
113 Raccoon "	1 Goose
42 Otter "	1 Pheasant
6 Marten "	2 Quail
1 Lynx "	49 Deer
79 Red Fox "	16 Portions of Deer
5 Cross Fox "	15 Portions of Moose
18 Fisher "	2,100 lbs. Fish
9 Bear "	31 Boxes Fish
8 Wolf "	
11 Squirrel "	
15 Deer Hides	
3 Moose Hides	
3,867 Total Pelts.	

ACCESSORIES.

144 Gill Nets (pieces)	1 Durant Motor Car
63,300 Yards Gill Net	1 Chevrolet Motor Car
46 Hoop Nets	1 Ford Motor Car
8 Dip Nets	1 Ford Truck
8 Seine Nets	80 Shotguns
1 Pound Nets	102 Rifles
25 Spears	6 Revolvers
120 Night Lines, etc.	679 Steel Traps
52 Fishing Poles, Reels, etc.	3 Trunks
8 Jack Lights	6 Suitcases
3 Tugs	2 Hand Axes
2 Motor Boats	2 Hunting Knives
1 Skiff	1 Blanket
2 Canoes	1 Ground Sheet
14 Rowboats	2 Rolls Chicken Wire
70 Decoy Ducks	

All confiscations are sold at advertised sales by tender, other than such articles as are sold by the Department to the former owner, when circumstances warrant.

ACKNOWLEDGMENT.

In closing this report, I desire to state that the Department has received willing support and co-operation from the Federal Government, railway officials, and from the members of all fish and game protective associations who are striving to assist in conserving the fish and game of the Province. I wish also to express my due appreciation of the loyal support given by the staff of both the inside and outside service, and to whom a fair share of the credit must be given for any success that has been attained by the Department.

All statistics referred to will be found elsewhere in this report, together with many other statistics in detail.

All of which is respectfully submitted.

I am,

Your obedient servant,

(Sgd.) D. McDONALD,

Deputy Minister of Game and Fisheries.

STATEMENT OF REVENUE RECEIVED BY GAME AND FISHERIES DEPARTMENT,
NOVEMBER 1st, 1921, TO OCTOBER 31st, 1922.

GAME

Royalty on Furs.....	\$89,115 96	
Indian Coupons.....	65,954 00	
Trapper's Coupons.....	64,665 00	
Trapper's Licenses.....	71,833 25	
Non-Resident Hunting Licenses.....	31,400 00	
Resident Deer Licenses.....	61,651 00	
Resident Moose Licenses.....	7,920 00	
Fur Dealer's Licenses.....	77,862 00	
Fur Farmer's Permits.....	675 25	
Tanner's Licenses.....	280 00	
Game Dealer's Licenses.....	677 00	
Hotel and Restaurant Licenses.....	329 00	
Cold Storage Licenses.....	155 00	
Guide's Licenses.....	2,160 00	
Fines—Game.....	16,154 98	
Sales—Game.....	8,587 33	
		<hr/>
		\$499,419 77

FISHERIES

Fishing Licenses.....	\$130,844 00	
Royalty—Fish.....	34,445 44	
Angling Permits.....	63,132 00	
Fines—Fish.....	2,185 93	
Sales—Fish.....	4,320 58	
Miscellaneous.....	3,171 93	
		<hr/>
		\$238,099 88

SALES BRANCH

Sale of Fish, etc.....		<hr/>
		\$ 24,825 39
Total.....		<hr/>
		\$762,345 04



PORTION OF EXHIBIT AT C. N. E., TORONTO.

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922

Black Bass Fry and Fingerlings

Waters	County or District	Quantity
Varty Lake.....	Addington.....	5,000
Beaver Lake.....	".....	5,000
Deer Lake.....	".....	2,500
Scoot River.....	".....	2,500
Lake Deborne.....	Algoma.....	2,500
Blue Lake.....	Brant.....	5,000
Fairchild's Creek.....	".....	10,000
Lake Chesley.....	Bruce.....	4,000
Gould Lake.....	".....	8,000
Funton Mill Dam.....	".....	2,500
Pearl Lake.....	".....	4,000
Sauble River.....	".....	4,000
Saugeen River.....	".....	10,000
Lake Deschene.....	Carleton.....	4,000
Scugog Lake.....	Durham.....	5,000
Grand River.....	Dufferin.....	5,000
Cole's Lake.....	Frontenac.....	5,000
Eagle Lake.....	".....	5,000
Loborough Lake.....	".....	5,000
Big Clear Lake.....	".....	5,000
Wickware Lake.....	".....	2,500
Drysdale's Lake.....	".....	5,000
Antoine Lake.....	".....	5,000
Collin's Lake.....	".....	5,000
Mountain Lake.....	Grey.....	2,500
Irish Lake.....	".....	2,500
Lake St. Frances.....	Glengarry.....	5,000
Maitland River.....	Huron.....	2,500
Cocklong Lake.....	Haliburton.....	2,500
Gull Lake.....	".....	4,000
Barnam Lake.....	".....	2,500
Miserable Lake.....	".....	2,500
Kuskog Lakes.....	".....	2,500
Beach Lake.....	".....	2,500
Grass Lake.....	".....	2,500
Grace Lake.....	".....	5,000
Yankton Lake.....	".....	2,500
Round Lake.....	".....	4,000
Lake Medad.....	Halton.....	5,000
Stoco Lake.....	Hastings.....	5,000
Eagle Lake.....	".....	4,000
Twin Lake.....	".....	2,500
Crow Lake.....	".....	2,500
Moir River.....	".....	5,000
Burnt Lake.....	".....	5,000
Rosses Lake.....	".....	5,000
Grand River.....	Haldimand.....	9,000
Rondeau Bay.....	Kent.....	4,000
Mississippi Lake.....	Lanark.....	5,000
Otty Lake.....	".....	5,000
Mississippi River.....	".....	2,500
Robertson's Lake.....	".....	5,000
Rideau Lakes.....	Leeds.....	2,500
Charleston Lake.....	".....	5,000
Sand Lake.....	".....	5,000
Indian Lake.....	".....	2,500
Newboro Lake.....	".....	2,500
Clear Lake.....	".....	2,500
Gananoque Lake.....	".....	5,000
Upper Beverly Lake.....	".....	5,000
Sixteen Mile Creek.....	Lincoln.....	5,000
Lake Gibson.....	".....	2,000
Pond Mills.....	Middlesex.....	5,000
Bear Creek.....	".....	4,000
Foster Lake.....	".....	5,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922—*Continued*

Black Bass Fry and Fingerlings

Waters	County or District	Quantity
Dingman's Creek.....	Middlesex.....	4,000
Lake of Bays.....	Muskoka.....	5,000
Lake Vernon.....	".....	2,000
Fairy Lake.....	".....	2,000
Peninsular Lake.....	".....	5,000
Oxtongue Lake.....	".....	5,000
Severn River.....	".....	5,000
Sparrow Lake.....	".....	5,000
Clearwater Lake.....	".....	2,500
Long Lake.....	".....	5,000
Buck Lake.....	".....	4,500
Near Cut.....	".....	2,000
Stewart Lake.....	".....	2,500
Estella Lake.....	".....	2,500
Cache Lake "Algonquin Park".....	Nipissing.....	2,500
Henry Lake "Algonquin Park".....	".....	2,500
Hill's Lake.....	".....	5,000
George Lake.....	".....	5,000
McLaughlin Lake.....	".....	5,000
Beaver Lake.....	".....	2,500
Wasa Lake.....	".....	2,500
Presque Isle Bay.....	Northumberland.....	4,000
Trent River.....	".....	5,000
Cranache's Lake.....	".....	5,000
Little Lake of Cramahe.....	".....	5,000
Cedar Creek.....	Oxford.....	4,000
Mill Pond.....	".....	2,500
Lisgar Lake.....	".....	5,000
Thames River and tributaries.....	".....	2,500
Harris Lake.....	Parry Sound.....	4,000
Whitefish Lake.....	".....	5,000
Mill Lake.....	".....	2,500
Magnetawan River.....	".....	2,000
Ahmic Lake.....	".....	5,000
Bear Lake.....	".....	2,500
Loon Lake.....	".....	2,500
Maple Lake.....	".....	2,000
Pickernel Lake.....	".....	2,500
Cecebe Lake.....	".....	2,500
Trout Lake.....	".....	2,500
Duck Lake.....	".....	2,000
Marsh Lake.....	".....	2,000
Doe Lake.....	".....	2,500
Ruthe Lake.....	".....	2,500
Blackstone Lake.....	".....	2,500
West Lake.....	Prince Edward.....	5,000
East Lake.....	".....	5,000
Parson's Dam.....	Peel.....	5,000
Deer Lake.....	Peterborough.....	2,500
Stoney Lake.....	".....	5,000
Clear Lake.....	".....	5,000
Lovesick Lake.....	".....	2,500
Gannon's Narrows.....	".....	5,000
Muskrat Lake.....	Renfrew.....	5,000
Barry's Bay.....	".....	5,000
Kemisseg Lakes.....	".....	5,000
Severn River.....	Simcoe.....	7,500
Bass Lake.....	".....	5,000
Little Lake.....	".....	5,000
Lake Semple.....	".....	7,500
Orr Lake.....	".....	5,000
Ramsay Lake.....	Sudbury.....	2,000
Bushy Lake.....	".....	2,000
Red Pine Lake.....	".....	2,000
Apsey Lake.....	".....	5,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922—*Continued**Black Bass Fry and Fingerlings*

Waters	County or District	Quantity
Bass Lake.....	Sudbury.....	2,500
Lee's Lake.....	".....	2,500
Chapleau Lake.....	".....	2,500
Cranberry Lake.....	".....	4,000
Twin Lakes.....	Timiskaming.....	5,000
Lake Sesekinika.....	".....	5,000
Big Water Lake.....	".....	5,000
Sturgeon Lake.....	Victoria.....	5,000
Cameron Lake.....	".....	5,000
Balsam Lake.....	".....	5,000
Waterloo Dam.....	Waterloo.....	2,500
Grand River.....	".....	10,000
Paradise Lake.....	".....	4,000
New Dundas Dam.....	".....	5,000
Wellesley Dam.....	".....	2,500
Hamilton Bay.....	Wentworth.....	5,000
Dundas Waterworks Dam.....	".....	2,500
Puslinch Lake.....	Wellington.....	5,000
Speed River.....	".....	5,000
Grenadier Pond.....	York.....	2,500
Water Fowl Pond, "Centre Island," Toronto.....	".....	2,500
Lake Simcoe.....	".....	5,000
Total.....		613,500

Parent Bass

Waters	County or District	Quantity
Achigan Lake.....	Algoma.....	185
Squaw Lake.....	Kenora.....	252
Second Lake.....	".....	250
Masey Lake.....	Thunder Bay.....	125
Rogers Lake.....	".....	125
Total.....		937

Speckled Trout Fry and Fingerlings

Waters	County or District	Quantity
Trout Lake.....	Algoma.....	10,000
Green Lake.....	".....	5,000
Johnson Lake.....	".....	5,000
Kerrs Lake.....	".....	5,000
Mud Lake.....	".....	5,000
Clear Lake.....	".....	5,000
Moose Lake.....	".....	5,000
Basswood Lake.....	".....	5,000
Agawa River.....	".....	5,000
Mongoose Lake.....	".....	10,000
Spruce Lake.....	".....	10,000
Loon Lake.....	".....	5,000
Pine Lake.....	".....	5,000
Hobon Lake.....	".....	10,000
Herman Lake.....	".....	5,000
Hawk Lake.....	".....	5,000
South Chippewa River.....	".....	10,000
Sand Lake.....	".....	20,000
Speckled Trout Brook.....	".....	10,000
Peak Lake.....	".....	5,000
Emerald Lake.....	".....	5,000
Round Lake.....	".....	5,000
Lake No. 1.....	".....	5,000
Lake Elizabeth.....	".....	5,000
Lake Maud.....	".....	5,000
Silver Creek.....	".....	5,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922—*Continued*
Speckled Trout Fry and Fingerlings

Waters	County or District	Quantity
Koshawang River.....	Algoma.....	5,000
Richardson's Creek.....	".....	10,000
Harmony Spring Creek.....	".....	10,000
Beryl Lake.....	".....	15,000
McCarroll's Lake.....	".....	5,000
Cloudy Lake.....	".....	5,000
Dymont Lake.....	".....	5,000
Stoney Creek.....	".....	10,000
Carp Creek.....	".....	10,000
Blueberry Lake.....	".....	500
Whiteman's Creek.....	Brant.....	10,000
German's Spring Creek.....	".....	10,000
Switzer's Creek.....	".....	10,000
Spring Creek.....	".....	10,000
Fairchilds Creek.....	".....	1,000
Barker's Creek.....	".....	1,000
Gibson's Creek.....	Bruce.....	2,000
Spring Creeks.....	".....	9,000
Thomson's Creek.....	".....	5,000
Monkman's Creek.....	".....	5,000
Sullivan Creek.....	" and Grey.....	5,000
Rathwell's Spring.....	".....	10,000
Elderslie Snake Creek.....	".....	10,000
Hammond Creek.....	".....	10,000
Underwood Creek.....	".....	10,000
Wolf Creek.....	".....	10,000
Barber's Spring Creek.....	".....	10,000
Black Snake Creek.....	".....	1,000
Stoney Spring Creek.....	".....	10,000
Creeks on Lot 20, Con. 7, 8, 9 and 10.....	".....	10,000
Grand River.....	Dufferin.....	5,000
Credit River and tributaries.....	".....	5,000
Hill Creek.....	".....	2,500
Curtis Creek.....	".....	2,500
Tyrone Creek.....	Durham.....	20,000
Wilmot's Creek.....	".....	10,000
Courtice Creek.....	".....	10,000
Mount Pleasant Creek.....	".....	5,000
Por Hope Creek.....	".....	5,000
Happy Valley Stream.....	".....	20,000
Braggs Creek.....	".....	15,000
Haydon Stream.....	".....	10,000
Cotton Creek.....	".....	10,000
Smith's Creek.....	".....	5,000
Devitt's Creek.....	".....	5,000
Spring Creek.....	".....	10,000
Galbraith's Creek.....	".....	5,000
Ganeraska.....	".....	10,000
Pigeon Creek.....	".....	5,000
Mountjoy's Creek.....	".....	5,000
Cole Creek.....	Frontenac.....	5,000
Judge's Spring Creek.....	".....	5,000
Trout Lake Creek.....	".....	10,000
Fall River.....	".....	5,000
Saugeen River and tributaries.....	Grey.....	41,000
Rocky Saugeen.....	".....	10,000
Sydenham River, "Harrison's Park".....	".....	30,000
Holstein Mill Pond.....	".....	10,000
Indian River.....	".....	10,000
Silver Creek.....	".....	10,000
Spring Creek (near Priceville).....	".....	10,000
Petty's Creek.....	".....	5,000
Varney Creek.....	".....	5,000
Gordon's Creek.....	".....	5,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922—*Continued**Speckled Trout Fry and Fingerlings*

Waters	County or District	Quantity
Eugenia Crown Game and Fish Preserve.....	Grey.....	122,000
Stoney Creek.....	".....	10,000
Gowin Creek.....	".....	10,000
Beatty Saugeen River.....	".....	10,000
Little Saugeen.....	".....	1,000
McCallum's Creek.....	Huron.....	5,000
Silver Creek.....	".....	10,000
Sharp's Creek.....	".....	11,000
Somerville Creek.....	".....	5,000
Belgrave Creek.....	".....	5,000
Farquar Lake.....	Haliburton.....	10,000
Twelve Mile Creek.....	Halton.....	10,000
Creek near Acton.....	".....	5,000
Squire's Creek.....	Hastings.....	15,000
Rawdon Creek.....	".....	10,000
Egan Creek.....	".....	5,000
Spring Creek.....	".....	10,000
Lott's Creek.....	".....	10,000
Mason Creek.....	".....	10,000
Mississippi River.....	Lanark.....	5,000
Dunn's Creek.....	Leeds.....	1,000
Currie's Pond.....	Middlesex.....	10,000
Douty Creek.....	".....	10,000
McFarland Spring Creek.....	".....	5,000
Blue Jay.....	Manitoulin.....	20,000
Manitou River.....	".....	20,000
Norton's Creek.....	".....	20,000
Mills Creek.....	".....	5,000
Spring Creek.....	".....	5,000
Fry's Lake.....	Muskoka.....	10,000
Doty's Lake.....	".....	5,000
White Lake.....	".....	5,000
Patterson's Creek.....	Norfolk.....	10,000
Kent Creek.....	".....	10,000
Crane Creek.....	".....	2,000
Young's Creek.....	".....	20,000
Winter's Creek.....	".....	10,000
McMichael's Spring Creek.....	".....	5,000
Hay Creek.....	".....	10,000
River Lynn.....	".....	5,000
Coal Creek.....	Northumberland.....	10,000
Spring Valley Pond.....	".....	11,000
Break-a-way Creek.....	".....	10,000
Baltimore Creek.....	".....	5,000
Miller's Creek.....	".....	5,000
Little Cole Creek.....	".....	10,000
Proctor's Creek.....	".....	10,000
Owen's Creek.....	".....	3,000
Stoney Creek.....	".....	5,000
Cedar Creek.....	".....	5,000
Tweedles Creek.....	".....	3,000
Scriver's Creek.....	".....	2,000
Madison's Creek.....	".....	2,000
Jackson's Creek.....	".....	10,000
Black's Creek.....	".....	10,000
Gunter's Creek.....	".....	1,000
Cole Creek.....	".....	20,000
Piper Creek.....	".....	10,000
Salern Canning Company's Creek.....	".....	10,000
Bellamy's Creek.....	".....	10,000
Burnley Stream.....	".....	5,000
Spring Creeks.....	Ontario.....	10,000
Black Creek Pond.....	".....	10,000
Creek fed by springs in vicinity of Uxbridge.....	".....	1,000
Cold Springs Creek.....	Oxford.....	10,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922—*Continued*

Speckled Trout Fry and Fingerlings

Water	County or District	Quantity
Ball Creek.....	Oxford.....	5,000
Venison Creek.....	".....	5,000
Clear Lake.....	".....	5,000
Three-Mile Lake.....	Parry Sound.....	5,000
Distress Creek.....	".....	5,000
Depot Creek.....	".....	5,000
Beggs Creek.....	".....	5,000
Round Lake Creek.....	".....	5,000
Trout Creek.....	Prince Edward.....	10,000
Ouse Creek.....	Peterborough.....	10,000
Plot's Creek.....	".....	10,000
Cook's Creek.....	".....	10,000
Sedgrick's Creek.....	".....	10,000
Buchanan's Creek.....	".....	10,000
Jack's Lake.....	".....	10,000
Little Ouse.....	".....	10,000
Moffatt Stream.....	Peel.....	2,000
Fountain at Listowel.....	Perth.....	75
Coldwater River.....	Simcoe.....	10,000
Vent's Creek.....	".....	5,000
McDonald's Creek.....	".....	5,000
Sturgeon River.....	".....	10,000
Mad Creek.....	".....	5,000
Noisy Creek.....	" and Grey.....	5,000
Pretty Rivers.....	".....	5,000
Avon Creek.....	".....	10,000
Taffy Creek.....	".....	10,000
Moon Creek.....	".....	10,000
Silver Creek.....	".....	5,000
Clear Lake.....	Sudbury.....	2,500
Crabb Lake.....	".....	2,500
Hanmer Creek.....	".....	10,000
Massay Creek.....	".....	10,000
Norman Geneva Creek.....	".....	10,000
Trout Creek.....	".....	10,000
Onoping River.....	".....	10,000
Lost Lake.....	".....	5,000
Allen Lake.....	Thunder Bay.....	10,000
McKenzie River.....	".....	10,000
Lake Wideman.....	".....	10,000
Lower Twin Lake.....	".....	10,000
Loon Lake.....	".....	10,000
Corbett's Creek.....	".....	10,000
Slate River.....	".....	10,000
Pine River.....	".....	10,000
Cedar Creek.....	".....	10,000
Neebing River.....	".....	10,000
Oliver Lake.....	".....	10,000
Brulu Creek.....	".....	10,000
Steel River.....	".....	10,000
Nipigon River.....	".....	27,500
Duck Lake.....	".....	5,000
Charlotte Lake.....	".....	5,000
Big Duck Lake.....	".....	5,000
Whitefish River.....	".....	10,000
Stewart Lake.....	".....	10,000
Fraser Creek.....	".....	10,000
Gravel River.....	".....	10,000
Spring Creek.....	".....	5,000
Gravel Lake.....	".....	5,000
Castle Lake.....	".....	5,000
Clearwater Lake.....	".....	15,000
Deception Lake.....	".....	10,000
Bula Lake.....	".....	5,000
Sprint Creek.....	Timiskaming.....	10,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922—*Continued**Speckled Trout Fry and Fingerlings*

Water	County or District	Quantity
Dixon Creek.....	Timiskaming.....	20,000
Latour.....	".....	20,000
Martin's Spring Creek.....	Victoria.....	5,000
Mill Creek.....	Waterloo.....	20,000
Reist's Creek.....	".....	2,000
Groff's Creek.....	".....	2,000
McNally's Creek.....	".....	10,000
Alder Creek.....	".....	10,000
Jantze's Creek.....	".....	10,000
Cedar Creek.....	".....	11,000
Boschardt Creek.....	".....	10,000
Cressman Creek.....	".....	10,000
Gingerich Creek.....	".....	10,000
Bomberg Creek.....	".....	10,000
Brubacher's Creek.....	".....	5,000
Sunfish Creek.....	".....	2,000
Millgrave Creek.....	Wentworth.....	20,000
Grindstone Creek.....	".....	10,000
Beverley Creek.....	".....	20,000
Streams in Township of Flamboro.....	".....	20,000
Dundas Creek.....	".....	20,000
Rathsay Creek.....	Wellington.....	10,000
Branch of Maitland River.....	".....	1,000
Credit River.....	".....	10,000
Pelham Spring Creek.....	Welland.....	10,000
Spring Creek.....	York.....	1,000
Total.....		2,184,075

Salmon Trout Fry and Fingerlings

Waters	County or District	Quantity
Long Lake.....	Algoma.....	45,000
Lake Superior.....	".....	610,000
North Channel.....	".....	2,000,000
Lake LaCloche.....	".....	20,000
Mud Lake.....	".....	10,000
Clear Lake.....	".....	30,000
Moose Lake.....	".....	10,000
Lake Elizabeth.....	".....	20,000
Lake Maud.....	".....	20,000
McCarroll's Lake.....	".....	10,000
Cloudy Lake.....	".....	10,000
Dyment Lake.....	".....	10,000
Little Trout Lake.....	".....	20,000
Desbarats Lake.....	".....	20,000
Matintinde Lake.....	".....	20,000
Mitchell Lake.....	".....	20,000
Island Lake.....	".....	45,000
Lake Louzon.....	".....	20,000
Chiblaw Lake.....	".....	20,000
Nettleton Lake.....	".....	20,000
Heyden Lake.....	".....	20,000
Rock Lake.....	".....	20,000
Root River.....	".....	20,000
Lonely Lake.....	".....	20,000
Lake Ann.....	".....	10,000
Haynes Lake.....	".....	10,000
Canoe Lake.....	".....	10,000
Sand Lake.....	".....	20,000
Cooley Pond.....	Brant.....	10,000
Gould Lake.....	Frontenac.....	15,000
Eagle Lake.....	".....	25,000
Trout Lake.....	".....	25,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922—*Continued*
Salmon Trout Fry and Fingerlings

Waters	Country or District	Quantity
Drag Lake.....	Haliburton.....	10,000
Blue Hawk Lake.....	".....	20,000
Gull Lake.....	".....	10,000
Hurricane Lake.....	".....	10,000
Delfiece Lake.....	".....	10,000
Westlemkoon Lake.....	Hastings.....	10,000
Horseshoe Lake.....	".....	15,000
Eagle Lake.....	".....	15,000
Salmon Lake.....	".....	15,000
Dickie's Lake.....	".....	15,000
Jamerson Lake.....	".....	15,000
Gull Lake.....	".....	15,000
Bass Lake.....	".....	10,000
Mannitaki Lake.....	Kenora.....	100,000
Armstrong Lake.....	".....	50,000
Agenak Lake.....	".....	100,000
Pelican Lake.....	".....	100,000
Silver Lake.....	Lanark.....	10,000
Pike Lake.....	".....	10,000
Charleston Lake.....	Leeds.....	50,000
Rideau Lakes.....	".....	50,000
Red Horse Lake.....	".....	15,000
Loyada Lake.....	".....	5,000
Temperance Lake.....	".....	5,000
Lake of Bays.....	Muskoka.....	60,000
Lake Vernon.....	".....	10,000
Fairy Lake.....	".....	10,000
Mary Lake.....	".....	10,000
Peninsular Lake.....	".....	10,000
Oxtongue Lake.....	".....	10,000
Bass Lake.....	".....	10,000
Tooke's Lake.....	".....	10,000
Pine Lake.....	".....	10,000
Fox Lake.....	".....	10,000
Cache Lake, "Algonquin Park".....	Nipissing.....	50,000
Four Mile Lake.....	".....	20,000
Trout Lake.....	".....	30,000
Clear Lake.....	".....	10,000
Rainy Lake, "Algonquin Park".....	".....	100,000
Brule Lake, " ".....	".....	100,000
Canoe Lake, " ".....	".....	100,000
Joe Lake, " ".....	".....	100,000
Source Lake, " ".....	".....	50,000
Beaver Lake.....	".....	20,000
Whitefish Lake.....	Parry Sound.....	10,000
Magnetawan River.....	" ".....	10,000
Shanty Lake.....	" ".....	10,000
Horseshoe Lake.....	" ".....	20,000
Sand Lake.....	" ".....	10,000
Horne Lake.....	" ".....	10,000
Rock Lake.....	" ".....	10,000
Braye Lake.....	" ".....	10,000
Eagle Lake.....	" ".....	10,000
Lake Bernard.....	" ".....	10,000
Trout Lake.....	" ".....	10,000
Stoney Lake.....	Peterborough.....	5,000
Clear Lake.....	".....	5,000
Catchacoma Lake.....	".....	10,000
Gull Lake.....	".....	10,000
Elbow Lake.....	Rainy River.....	50,000
Baril Lake.....	" ".....	50,000
Rainy Lake.....	" ".....	100,000
Mink Lake.....	" ".....	50,000
Mink Lake.....	Renfrew.....	20,000
Muskrat Lake.....	".....	20,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922—*Continued**Salmon Trout Fry and Fingerlings*

Waters	County or District	Quantity
Barry's Bay.....	Renfrew.....	5,000
Kemiseg Lakes.....	".....	5,000
Lake Simcoe.....	Simcoe.....	1,000,000
Hardwood Lake.....	Sudbury.....	30,000
Ella Lake.....	".....	25,000
Trout Lake.....	".....	25,000
Ramsay Lake.....	".....	25,000
Bushy Lake.....	".....	20,000
Red Pine Lake.....	".....	20,000
East Fox Lake.....	".....	5,000
Lake Nipigon.....	Thunder Bay.....	810,000
Kashabowie Lake.....	".....	100,000
Lake Shebandawan.....	".....	100,000
Long Lake.....	".....	100,000
Little Long Lake.....	".....	50,000
Arrow Lake.....	".....	100,000
Lake Hellen.....	".....	200,000
Windigo Lake.....	".....	50,000
Hazel Lake.....	".....	5,000
Lake Sese kinika.....	Timiskaming.....	20,000
Wealthy Lakes.....	".....	30,000
Lake Timiskaming.....	".....	30,000
Anima Nipissing Lake.....	".....	20,000
Little Trout Lake.....	".....	10,000
Golden Lake.....	".....	10,000
Total.....		7,815,000

Pickereel

Waters	County or District	Quantity
Varty Lake.....	Addington.....	15,000
Napanee River.....	".....	50,000
Sheldrake Lake.....	".....	50,000
Loon Lake.....	".....	50,000
Beaver Lake.....	".....	100,000
Peters Pond.....	".....	100,000
Pearl Lake.....	Brant.....	50,000
Grand River.....	".....	500,000
Lake Chesley.....	Bruce.....	50,000
Rice Lake.....	Durham.....	400,000
Lake Ontario.....	".....	1,000,000
Loborough Lake.....	Frontenac.....	100,000
Sydenham Lake.....	".....	100,000
Chippego Lake.....	".....	100,000
Fish Lake.....	".....	100,000
Devil Lake.....	".....	100,000
Big Clear Lake.....	".....	100,000
Salt Lake.....	".....	25,000
Wickware Lake.....	".....	25,000
Drysdale's Lake.....	".....	25,000
Stony Lake.....	".....	25,000
Knolton Lake.....	".....	100,000
Fifth Depot Lake.....	".....	100,000
Buck Lake.....	".....	100,000
Wolf Lake.....	".....	100,000
Lake St. Frances.....	Glengarry.....	100,000
Cocklong Lake.....	Haliburton.....	100,000
Lake Ontario.....	Halton.....	2,000,000
Stoco Lake.....	Hastings.....	100,000
Twin Lake.....	".....	25,000
Crow Lake.....	".....	50,000
Oak Hill Lake.....	".....	100,000
Moirs River.....	".....	100,000
Beaver Creek.....	".....	25,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922—*Continued**Pickeral*

Waters	County or District	Quantity
Burnt Lake.....	Hastings.....	100,000
Grand River.....	Haldimand.....	250,000
Thames River.....	Kent.....	200,000
Christie Lake.....	Lanark.....	50,000
Mississippi River.....	".....	100,000
Robertson's Lake.....	".....	100,000
Patterson Lake.....	".....	50,000
Charleston Lake.....	Leeds.....	350,000
Rideau Lakes.....	".....	100,000
Killenback Lake.....	".....	100,000
Higley Lake.....	".....	100,000
Bass Lake.....	".....	10,000
Lower Beverly Lake.....	".....	100,000
Little Lake.....	".....	150,000
Indian Lake.....	".....	100,000
Lake Ontario.....	Lincoln.....	100,000
Lake Joseph.....	Muskoka.....	1,000,000
Lake of Bays.....	".....	500,000
Wood Lake.....	".....	50,000
Prospect Lake.....	".....	50,000
Lake Rosseau.....	".....	1,000,000
Lake Muskoka.....	".....	1,000,000
Sparrow Lake.....	".....	1,000,000
Long Lake.....	".....	50,000
Axe Lake.....	".....	50,000
Buck Lake.....	".....	100,000
Watagon Lake.....	".....	100,000
Maenhood Lake.....	".....	100,000
Toronto Lake No. 1.....	".....	50,000
Toronto Lake No. 2.....	".....	50,000
Leach Lake.....	".....	50,000
Cache Lake, "Algonquin Park".....	Nipissing.....	50,000
Lake Erie.....	Norfolk.....	23,000,000
Crow Bay.....	".....	50,000
Trent River.....	Northumberland.....	50,000
Cold Creek.....	".....	100,000
Lake Ontario.....	Ontario.....	1,000,000
Mill Pond.....	Oxford.....	50,000
Harris Lake.....	Parry Sound.....	50,000
Magnetawan River.....	" ".....	50,000
Ahmic Lake.....	" ".....	50,000
Commenda Lake.....	" ".....	50,000
Maple Lake.....	" ".....	50,000
Star Lake.....	" ".....	50,000
Pickeral Lake.....	" ".....	50,000
Cecebe Lake.....	" ".....	50,000
Indian River.....	Peterborough.....	100,000
Pigeon Lake.....	".....	200,000
Buckhorn Lake.....	".....	200,000
Stoney Lake.....	".....	400,000
Oak Lake.....	".....	50,000
Lake Ontario.....	Peel.....	1,000,000
Lake Dore.....	Renfrew.....	50,000
Muskrat Lake.....	".....	50,000
Chain Lake.....	".....	50,000
Barry's Bay.....	".....	25,000
Kemisheg Lakes.....	".....	25,000
Golden Lake.....	".....	50,000
White Lake.....	".....	50,000
Lake Couchiching.....	Simcoe.....	500,000
Lake Simcoe.....	".....	500,000
Bushy Lake.....	Sudbury.....	50,000
Red Pine Lake.....	".....	50,000
Twin Lake.....	".....	50,000
French River.....	".....	50,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922—*Continued*

<i>Pickeral</i>		
Waters	County or District	Quantity
Apsey Lake.....	Sudbury.....	50,000
Anima Nipissing Lake.....	Temiskaming.....	100,000
Sturgeon Lake.....	Victoria.....	200,000
Balsam Lake.....	“.....	200,000
Mud Lake.....	“.....	100,000
Waterloo Dam.....	Waterloo.....	50,000
Grand River.....	“.....	100,000
Lake Ontario.....	Wentworth.....	1,000,000
Hamilton Bay.....	“.....	100,000
Puslinch Lake.....	Wellington.....	100,000
Gibson Lake.....	Welland.....	50,000
Total.....		43,510,000

<i>Whitefish</i>		
Waters	County or District	Quantity
Lake Superior.....	Algoma.....	46,275,000
North Channel.....	“.....	24,000,000
Lake Ontario.....	Durham.....	2,000,000
Lake Ontario.....	Halton.....	4,000,000
Lake Wabigoon.....	Kenora.....	2,000,000
Eagle Lake.....	“.....	2,000,000
Lake Ontario.....	Lincoln.....	2,000,000
Lake Erie.....	Norfolk.....	74,000,000
Lake Ontario.....	Northumberland.....	2,000,000
Lake Ontario.....	Ontario.....	2,000,000
Lake Ontario.....	Peel.....	2,000,000
Elbow Lake.....	Rainy River.....	500,000
Rainy Lake.....	“ “.....	2,000,000
Little Turtle Lake.....	“ “.....	500,000
Mink Lake.....	“ “.....	500,000
Lake Nipigon.....	Thunder Bay.....	10,000,000
Kashabowie Lake.....	“ “.....	1,000,000
Lake Shebandawan.....	“ “.....	2,000,000
Long Lake.....	“ “.....	1,000,000
Whitefish Lake.....	“ “.....	2,000,000
Little Long Lake.....	“ “.....	500,000
Arrow Lake.....	“ “.....	2,000,000
Lake Hellen.....	“ “.....	1,000,000
Windigo Lake.....	“ “.....	500,000
Lake Ontario.....	Wentworth.....	4,000,000
Total.....		189,775,000

<i>Herring</i>		
Waters	County or District	Quantity
Lake Erie.....	Norfolk.....	18,250,000
Lake Ontario.....	Durham.....	2,000,000
Lake Ontario.....	Halton.....	4,000,000
Lake Ontario.....	Wentworth.....	2,000,000
Total.....		26,250,000

<i>Rainbow Trout</i>		
Waters	County or District	Quantity
Sault Ste. Marie Rapids.....	Algoma.....	14,550
Colpoy's Creek.....	Bruce.....	1,000
Eagle Lake.....	Frontenac.....	1,000
Gleician River.....	Grey.....	1,000
Trout Lake.....	Parry Sound.....	1,000
Sturgeon Lake.....	Victoria.....	1,000
Lake Simcoe.....	Simcoe.....	1,200
Riverdale Park, Toronto.....	York.....	250
Total.....		21,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1922—*Continued*

Steel Head Salmon

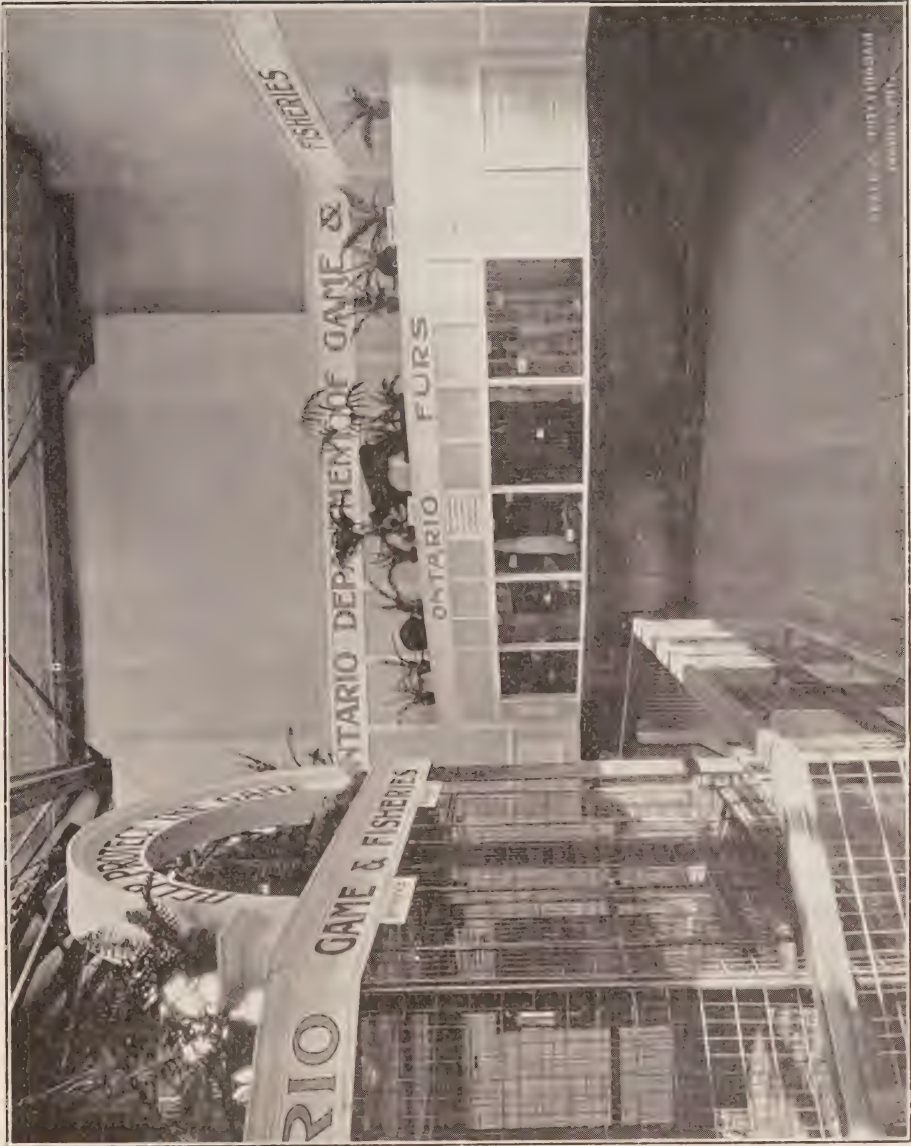
Waters	County or District	Quantity
Lake Simcoe.....	Simcoe.....	5,300

SUMMARY

Black Bass Fry and Fingerlings.....	613,500
Parent Black Bass.....	937
Speckled Trout Fry and Fingerlings.....	2,184,075
Salmon Trout Fry and Fingerlings.....	7,815,000
Pickarel.....	43,510,000
Whitefish.....	189,775,000
Herring.....	26,250,000
Rainbow Trout.....	21,000
Steel Head Salmon.....	5,300
Total distribution.....	270,174,812

COMPARATIVE STATEMENT OF DISTRIBUTION

	1921	1922
Black Bass Fry and Fingerlings.....	773,500	613,500
Parent Black Bass.....	742	937
Speckled Trout Fry and Fingerlings.....	1,147,500	2,184,075
Salmon Trout Fry and Fingerlings.....	110,400	7,815,000
Pickarel.....	27,625,000	43,510,000
Whitefish.....	115,950,000	189,775,000
Herring.....	9,740,000	26,250,000
Rainbow Trout.....		21,000
Steel Head Salmon.....		5,300
	155,347,142	270,174,812



PORTION OF EXHIBIT AT C. N. E., TORONTO

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the industry during the year 1922, in the Public

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Kenora and Rainy River.</i>			\$			\$			\$			\$
1 Lake of the Woods.....	4	75	11,200	9	45	17,425	57	48	3,548	19	78,361	11,785
2 Rainy Lake.....					29	11,650	45	22	970	10	43,210	7,888
3 Namicon, Despair, Jack Fish, Clearwater, Loon and Pipestone Lakes.....					2	1,200	2	9	525	17	20,000	4,150
4 Vista, Six Mile, Kairston, Yoke and Shoal Lakes....	1	13	1,200	2	4	2,650	7	2	80	5	15,500	2,490
5 Little Turtle, Pickerel, Trout, White Otter, Elbow and Nora Lakes.....					2	500	4	2	70	5	11,000	1,688
6 Basket, Indian, Skikog, Sturgeon, McKenzie and Stanghikina Lakes.....					2	450	1	4	180	8	6,127	994
7 Vermillion, Manitakie, Sandy, Feegan and Lost Lakes....					4	1,500	6	2	226	2	13,100	2,425
8 Manitou, Gull, Eagle, Obabicon and Wabigoon Lakes.....					10	3,950	12	4	115	2	15,700	3,098
9 Rock, Deer, One Man, and Lac Seul Lakes.....	2	27	8,000	5	8	4,800	18	4	115	3	29,150	3,660
10 Perrault, Keyes, Shoal, Win- nange and Black Sturgeon Lakes.....					1	250	1	3	125	4	5,000	1,200
Totals.....	7	115	20,400	16	107	44,375	153	100	5,954	75	237,148	39,378

Return of the kinds, quantities and values of fish caught

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickerel, or Dore
<i>Kenora and Rainy River</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Lake of the Woods.....				116,855		12,431	202,105	466,521
2 Rainy Lake.....				66,126		145	157,898	154,836
3 Namicon, Despair, Jack Fish, Clearwater, Loon, and Pipestone Lakes.....				32,628		23,581	24,474	31,977
4 Vista, Six Mile, Kairston, Yoke and Shoal Lakes....				76,990		6,988	13,205	92,233
5 Little Turtle, Pickerel, Trout, White Otter, Elbow, and Nora Lakes....				8,499		10,599	9,500	17,374
6 Basket, Indian, Skikog, Sturgeon, McKenzie, and Stanghikina Lakes....				20,025		5,104	7,706	18,049
7 Vermilion, Manitakie, Sandy, Feegan and Lost Lakes.....				41,094		14,686	17,987	45,192
8 Manitou, Gull, Eagle, Obabicon and Wabi- goon Lakes.....				47,237		8,351	26,190	56,246
9 Rock, Deer, One Man, and Lac Seul Lakes.....				177,276		203	28,910	159,116
10 Perrault, Keyes, Shoal, Winnange and Black Sturgeon Lakes.....				3,519		5,695	385	57
Totals.....				590,249		87,783	488,360	1,041,601
Values.....	\$ c.	\$ c.	c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
				70,829 88		9,656 13	24,418 00	145,824 14

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the fishing Waters of Kenora and Rainy River Districts.

Fishing material												Other fixtures used in fishing.				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$	No. Hooks					\$		\$
.....			32	8,000	46	1,442	.....		.....		.....		36	11,045	34	7,890
.....			22	8,800	.....		.....		.....		.....		22	5,075	5	675
.....			5	1,000	.....		.....		.....		.....		1	150	.....
.....				3	2,200	3	450
.....				3	450	2	130
.....				3	300	7	170
.....				7	1,300	4	120
.....				9	1,700	8	1,350
.....			2	1,000	.....		.....		.....		.....		13	5,100	10	1,425
.....				1	50	1	45
.....			61	18,800	46	1,442	.....		.....		.....		98	27,370	74	12,255

during the year 1922, in the Public Waters of Kenora and Rainy River Districts.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	N.	lbs.	\$ c.
1,051	245	43,722	.....	.....	78,090	.....	.....	.....	96,476 98
741	14,527	77,402	.....	2,640	53,198	12	.....	1,800	44,688 71
1,092	3,860	.....	.....	1,051	15	.....	1,800	12,901 15
.....	11,139	.....	.....	.....	24,025 91
485	448	213	.....	.....	4,800	9	.....	.....	5,492 63
.....	145	.....	.....	.....	.....	.....	.....	5,883 85
.....	4,500	.....	.....	.....	.....	.....	.....	13,997 97
.....	848	.....	.....	.....	.....	.....	.....	15,813 39
800	84	.....	.....	236	100	.....	.....	45,154 83
.....	1,075 96
4,169	15,220	130,774	.....	2,640	148,514	136	.....	3,600	.....
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$ c.	\$ c.
1,375 77	761 00	6,538 70	.....	105 60	5,940 56	217 60	.....	144 00	265,811 38

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1922, in

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake Superior</i>			\$			\$			\$			\$
1 Pigeon River to Sturgeon Point and Whitefish Lake					2	300	4	13	670	23	10,340	1,635
2 Thunder Bay	5	138	13,000	45	6	2,350	12	9	640	14	203,900	14,189
3 Black Bay, Point Magnet, Welcome Islands	1	42	6,500	4	9	3,675	19	5	360	6	50,700	4,887
4 Crayfish, Arrow, North Kashabowie Lakes								4	110	4	2,600	350
5 Rossport, Wilson, Evelyn, Lamb and Shaganash Is- lands	3	43	9,000	6	12	4,650	12	5	395	5	100,400	10,695
6 Jack Fish and Port Caldwell	1	44	5,000	5	2	475	2	5	600	6	58,250	7,000
7 Beatty, Partridge, Eskag- anaga and Wawong Lakes					1	250	3	3	140	5	6,450	905
8 Lake Nipigon	7	164	28,000	44	5	9,400	12	2	100		97,000	11,750
9 Michipicoten to Copper- mine Pts. and Oba Lake	2	65	9,500	14	4	2,675	9	13	1,515	21	153,400	21,940
10 Batchawana to Gros Cap	2	40	10,000	8	9	5,050	21	9	1,380	16	27,160	2,117
Totals	21	536	81,000	126	50	28,825	94	68	5,910	100	710,200	75,468

Return of the kinds, quantities and values of fish caught

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish fresh	Trout, salted	Trout, fresh	Pike	Pickrel, or Dore
<i>Lake Superior.</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Pigeon River to Sturgeon Pt. and Whitefish Lake		1,000		24,495	6,235	20,000	540	
2 Thunder Bay	27,500	518,770		45,619	1,020	290,981	696	6,332
3 Black Bay, Point Magnet and Welcome Islands		52,265		43,908	68	51,395	4,316	50,251
4 Crayfish, Arrow, North, and Kashabowie Lakes			100	2,609		1,771	1,075	
5 Rossport, Wilson, Evelyn, Lamb and Shaganash Islands		100		44,747	2,150	393,614	4,204	17,468
6 Jackfish and Port Caldwell				10,795	200	232,883		4,024
7 Beatty, Partridge, Wa- wong, and Eskaganaga Lakes			740	10,626	850	6,802	5,326	8,509
8 Lake Nipigon				897,500		389,035	8,265	62,440
9 Michipicoten to Copper- mine Points and Oba Lakes				55,652	1,200	376,257	3,896	1,199
10 Batchawana to Gros Cap		4,930		62,149		109,583	1,980	13,969
Totals	27,500	577,065	840	1,198,100	11,723	1,872,321	30,298	164,192
Values	\$ c. 1,650 00	\$ c. 23,082 60	\$ c. 100 80	\$ c. 143,772 00	\$ c. 1,289 53	\$ c. 205,955 31	\$ c. 1,514 90	\$ c. 22,986 88

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the the Public Waters of Lake Superior.

Fishing material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$				\$		\$
			3	1,300									1 295			
			6	4,100									2 2,100	4	1,900	
													2 1,600	2	600	
													4 1,180	1	20	
			17	4,400									1 700	2	300	
			7	1,850									4 2,150	3	800	
													3 300	1	50	
			20	9,100					3,000	500			4 2,000	2	500	
									6,000	375			5 2,250	3	3,625	
			53	20,750					9,000	875			26 12,575	18	7,795	

during the year 1922, in the Public Waters of Lake Superior.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
						34,608			200	7,284 57
						3,134				61,041 83
						34,055				21,633 63
			78			3,600				721 5
316		162			2,290	1,989			50	51,848 94
2,724										28,396 81
						3,080				3,786 40
13,086										163,967 08
						1,819				48,633 93
6,939					4,897	31,087	86			25,630 70
23,065		162	78		7,187	113,372	86		250	
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$ c.	\$ c.
7,611 45		8 10	3 90		287 48	4,534 88	137 60		10 00	412,945 43

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1922, in the

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake Huron (North Channel)</i>			\$			\$			\$			\$
1 Bruce Mines, Lake George, St. Joseph's Island.....					5	1,950	10	8	290	13	13,700	1,000
2 Thessalon, Cummings Lake, Mud and Blind Rivers.....					12	7,400	27	16	3,320	12	42,020	3,825
3 Algoma Mills, Spragge and Cutler.....					1	250	2	8	1,160	14	11,140	1,132
4 Spanish River and Bay of Islands.....	1	18	7,000	6	8	2,500	16	15	1,065	16	16,100	2,140
5 Bear, Whisky, Pecard and Oba Lakes.....								3	80	5	7,100	815
6 Little Current, Shiquindah and Manitowaning Bays.....					10	7,600	19	12	760	11	9,100	985
7 Kagawong, Gore Bay and Mindemoya.....	3	83	19,000	13				10	798	14	90,700	10,025
8 Meldrum Bay, Corkburn Island.....	4	123	20,000	20	4	2,850	8	1	50	2	95,900	17,785
Totals.....	8	224	46,000	39	40	22,550	82	73	7,523	87	285,760	37,707

Return of the kinds, quantities and values of fish caught during

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickrel, or Dore
<i>Lake Huron (North Channel)</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Bruce Mines, Lake George St. Joseph's Island.....		310	200	2,937		16,433	20,444	5,727
2 Thessalon, Cummings Lake, Mud and Blind Rivers.....		7,054	750	92,895	5,188	132,094	8,299	35,971
3 Algoma Mills, Spragge and Cutler.....	1,000	2,064		2,748		11,083	12,580	1,645
4 Spanish River and Bay of Islands.....		8,188		3,942		15,110	19,540	53,809
5 Bear, Whisky, Pecard and Oba Lakes.....				1,776		1,673	2,212	5,286
6 Little Current, Shiquindah Manitowaning Bays				60,956		35,889	34,446	60,326
7 Kagawong, Gore Bay, Mindemoya.....		575	200	45,415	450	56,224	6,444	1,540
8 Meldrum Bay, Cockburn Island.....				42,459		379,448	193	8
Totals.....	1,000	18,191	1,150	253,128	5,638	647,954	104,158	164,312
Values.....	\$ c. 60 00	\$ c. 727 64	\$ c. 138 00	\$ c. 30,375 36	\$ c. 620 18	\$ c. 71,274 94	\$ c. 5,207 90	\$ c. 23,003 68

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the Public Waters of Lake Huron (North Channel).

Fishing material												Other fixtures used in fishing.				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
			6	1,700	8	605							7	895	3	300
			46	21,810									7	5,100	6	6,400
					12	1,075							5	875		
			28	10,500									11	1,770	4	2,525
			30	19,700									8	4,400	15	2,250
			9	3,600									4	1,025	3	3,200
			10	10,000					2,000	105			3	775	3	2,050
			129	67,310	20	1,680			2,000	105			45	14,840	34	16,725

the year 1922, in the Public Waters of (North Channel), Lake Huron.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
530	2,840	.....	40	5,350	53,766	.....	.....	.....	6,704 79
3,222	489	.....	.....	9,793	142,218	37	.....	.....	39,298 82
.....	1,234	.....	.....	.....	33,581	.....	.....	.....	3,955 69
3,783	5,378	.....	.....	532	57,295	17	.....	.....	14,830 49
.....	4,081	.....	.....	.....	1,411 03
3,264	3,076	.....	48	44	58,934	10	.....	.....	25,039 85
2,004	6,193	.....	.....	640	50,770	.....	.....	.....	15,296 11
.....	46,845 13
12,803	19,210	.....	88	16,359	400,645	64	.....	.....	.....
\$ c. 4,224 99	\$ c.	\$ c. 960 50	\$ c.	\$ c. 6 16	\$ c. 654 36	\$ c. 16,025 80	\$ c. 102 40	\$	\$ c.	\$ c. 153,381 91

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats,
fishing industry during the year 1922,

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Georgian Bay</i>			\$			\$			\$			\$
1 Parry Sound.....	6	177	39,000	31	18	19,200	41	21	4,255	34	451,120	44,805
2 Simcoe and Muskoka.....	1	30	2,000	5	11	4,593	17	33	2,540	49	145,300	14,123
3 Grey County.....	6	161	30,600	27	24	33,150	58	10	560	10	251,120	23,380
4 Bruce County.....	1	20	6,000	4	19	16,750	41	23	1,005	26	84,120	7,295
5 Manitoulin Isld., East Side	7	169	49,000	39	27	27,050	49	13	1,290	10	296,874	33,414
Totals.....	21	557	126,600	106	99	100,743	206	100	9,650	129	1,228,534	123,017

Return of the kinds, quantities and values of fish caught during

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish fresh	Trout, salted	Trout, fresh	Pike	Pick- erel, or Dore
<i>Georgian Bay</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Parry Sound.....		5,729	108	505,717	1,000	234,039	57,364	92,065
2 Simcoe and Muskoka.....	1,300	29,369	200	36,818	900	103,506	19,702	12,409
3 Grey County.....		17,800	200	10,386	4,950	359,994		
4 Bruce County.....		20,948		12,546	3,400	291,878		198
5 Manitoulin Island, East side.....				503,137		445,414	30,596	16,920
Totals.....	1,300	73,846	508	1,068,604	10,250	1,434,831	107,662	121,592
Values.....	\$ c. 78 00	\$ c. 2,953 84	\$ c. 60 96	\$ c. 128,232 48	\$ c. 1,127 50	\$ c. 157,831 41	\$ c. 5,383 10	\$ c. 17,022 88

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Georgian Bay.

Fishing material												Other fixtures used in fishing.				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
.....			18	15,750	3	150	.....		.....		.....		8	6,025	9	7,950
7	1,030	1,058	.....		47	1,016	.....		.....		.....		5	1,125	4	900
.....			4	3,000	.....		.....		.....		.....		9	650	11	1,250
.....			13	6,500	.....		.....		.....		.....		9	1,595	11	1,500
.....			41	38,400	.....		.....		.....		.....		4	1,300	2	4,000
7	1,030	1,058	76	63,650	50	1,166	.....		.....		.....		35	10,695	37	15,600

the year 1922, in the Public Waters of Georgian Bay.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
1,147	...	34	706	...	500	21,786	...	...	...	103,846 70
1,922	...	1,953	...	5,361	49,942	55,521	334	...	...	25,762 04
43	3,370	...	...	400	...	...	...	42,294 66
387	...	160	49,089	...	...	10,048	...	...	...	37,336 38
3,499	...	2,147	21,862	...	...	...	...	...	...	114,901 31
...	75,027	5,361	50,442	87,755	334	...	...	...
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$ c.	\$ c.
1,154 67	...	107 35	3,751 35	375 27	2,017 68	3,510 20	534 40	...	...	324,141 09

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1922,

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake Huron (Proper)</i>			\$			\$			\$			\$
1 Bruce County.....	5	143	20,000	28	20	15,290	48	5	625	7	410,300	40,769
2 Huron County.....	.....	.....	.....	.....	14	10,575	32	2	70	38	80,335	8,477
3 Lambton County (including St. Clair River).....	.....	.....	.....	.....	15	6,575	30	21	750	28	.....	.....
4 Manitoulin Island.....	5	140	39,000	27	9	4,125	18	11	710	10	291,900	34,725
Totals.....	10	283	59,000	55	58	36,565	128	39	2,155	83	782,535	83,971

Return of the kinds, quantities and values of fish caught

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickrel, or Dore
<i>Lake Huron (Proper)</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Bruce County.....	3,200	23,990	900	21,645	17,629	765,008	36	1,338
2 Huron County.....	100	16,068	.....	5,349	1,000	95,719	.....	15,057
3 Lambton County (includ- ing St. Clair River).....	.....	130,627	.....	20,012	.....	5,180	1,204	143,723
4 Manitoulin Island.....	.....	6,486	.....	20,205	2,175	820,544	3,844	181
Totals.....	3,300	177,171	900	67,211	20,804	1,686,451	5,084	160,299
Values.....	\$ c. 198 00	\$ c. 7,086 84	\$ c. 108 00	\$ c. 8,065 32	\$ c. 2,288 44	\$ c. 185,509 61	\$ c. 254 20	\$ c. 22,441 86

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Huron (Proper).

Fishing material												Other fixtures used in fishing.				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
1	30	15	2	800			1	5	3,000	240			12	3,850	7	675
			10	3,000									10	1,425	9	350
11	565	560	50	28,100	3	225							8	1,075	2	175
			21	17,250									2	2,300	2	3,000
12	595	575	83	49,150	3	225	1	5	3,000	240			32	8,650	20	4,200

during the year 1922, in the Public Waters of Lake Huron (Proper).

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
131		6,828	129,903			1,450				97,073 97
1,155		113,846	400	105		29,838	30			21,379 99
9,135		5,428		1,150	3,140	73,302	604		10,969	36,207 03
30		225	1,205			9,074				93,845 03
10,451		126,327	131,508	1,255	3,140	113,664	634		10,969	
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$ c.	\$ c.
3,448 83		6,316 35	6,575 40	87 85	125 60	4,546 56	1,014 40		438 76	248,506 02

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the fishing industry during the year 1922,

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake St. Clair</i>			\$			\$			\$			\$
1 Kent County.....					29	13,995	50	45	2,825	82		
2 Essex County.....					22	8,250	38	34	1,750	34		
3 Detroit River.....					1	100	1	26	790	39		
Totals.....					52	22,345	89	105	5,365	155		

Return of the kinds, quantities and values of fish caught

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish fresh	Trout, salted	Trout, fresh	Pike	Pickarel, or Dore
<i>Lake St. Clair</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Kent County.....							13,335	30,029
2 Essex County.....				3,370			4,391	26,134
3 Detroit River.....				200			7,410	975
Totals.....				3,570			25,136	57,138
Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
				428,40			1,256 80	7,999 32

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake St. Clair.

Fishing material												Other fixtures used in fishing.				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
27	4,358	4,370	139	13,200	2	60	.....	.....	550	22	.....	.....	25	13,560	25	4,020
6	1,310	935	86	10,725	.....	.....	.....	.....	1,600	92	.....	.....	17	8,915	7	2,675
25	2,971	1,858	.....	.....	.....	.....	.....	.....	300	5	.....	.....	.....	.....	4	930
58	8,639	7,163	225	23,925	2	60	.....	.....	2,450	119	.....	.....	42	22,475	36	7,625

during the year 1922, in the Public Waters of Lake St. Clair.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
200		59,165		18,126	228,461	287,437 .....	.....	.....		29,799 80
7,119		33,370		13,233	50,872	115,750	296 .....	.....		16,365 27
850		3,650		480	33,933	58,290 .....	.....	.....	2,400	4,812 52
8,169		96,185		31,839	313,266	461,477	296 ....	.....	2,400	.....
\$ c. 2,695 77	\$ c.	\$ c. 4,809 25	\$ c.	\$ c. 2,228 73	\$ c. 12,530 64	\$ c. 18,459 08	\$ c. 473 60	\$	\$ c. 96 00	\$ 50,977 c. 59

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, the fishing industry during the year 1922,

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton-nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake Erie</i>			\$			\$			\$			\$
1 Essex County.....	3	81	42,000	18	41	37,300	104	35	6,140	33	134,078	18,740
2 Kent County.....	2	50	14,000	16	52	40,300	132	29	3,405	23	92,500	11,990
3 Elgin County.....	20	675	166,108	131	21	14,100	82	22	1,033	27	567,050	77,610
4 Norfolk County.....	7	167	40,000	46	25	16,435	63	60	3,530	82	219,720	21,359
5 Haldimand County (including Grand River).....	7	169	60,000	37	16	16,200	47	37	1,577	36	335,600	34,580
6 Welland County (including Upper Niagara River).....					3	1,450	6	21	755	29	13,800	1,455
Totals.....	39	1,142	322,108	248	158	125,785	434	204	16,440	230	1,362,748	165,734

Return of the kinds, quantities and values of fish caught

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pickarel, or Dore
<i>Lake Erie</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Essex County.....		40,595	454	168,516		4	609	132,519
2 Kent County.....		190,226		22,426			25,375	148,504
3 Elgin County.....		2,328,927		178,340			65,488	162,045
4 Norfolk County.....		2,079,149		50,908		321	41,928	11,172
5 Haldimand County (includ- ing Grand River).....		1,636,166		326,458		201	1,101	47,998
6 Welland County (including Upper Niagara River).....		31,255		4,622			9,235	2,832
Totals.....		6,306,318	454	751,270		526	143,736	505,070
Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		252,252 72	54 48	90,152 40		57 86	7,186 80	70,709 80

FISHERIES.

quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Erie.

Fishing material													Other fixtures used in fishing.			
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
6	1,430	1,075	201	131,700	5	225	1	50	1,300	190			27	25,550	14	8,470
7	2,275	1,475	215	473,200			1	10					34	80,810	19	7,750
29	9,845	6,625	147	75,300	2	100	5	50	1,815	98			25	19,450	12	11,250
			22	13,000	33	701	1	10	400	8			12	7,254	12	4,025
8	760	522	64	31,300			12	108					13	7,200	7	1,610
2	30	57	6	3,000			11	66	4,475	142			3	300		
52	14,340	9,754	655	727,500	40	1,026	31	294	7,990	438			114	140,564	64	33,105

during the year 1922, in the Public Waters of Lake Erie.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickered (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
18,917		466,567		34,050	55,801	540,149	520		748,892	127,063 89
1,866		801,381		1,365	66,009	293,461	52		2,357,006	181,882 09
1,083		542,297		13,702	956	73,104	9		1,925,462	248,945 24
1,049		198,110		9,116	66,251	127,184	66		520,930	132,540 70
8,039	7	81,727		80	43,119	149,118	387		675,813	153,505 34
5,405		18,945		8	1,790	44,154	433		84,486	11,304 53
36,359	7	2,109,027		58,321	233,926	1,227,170	1,467		6,312,589	
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$ c.	\$ c.
11,998 47	84	105,451 35		4,082 47	9,357 04	49,086 80	2,347 20		252,503 56	855,241 79

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year 1922,

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Lake Ontario</i>			\$		\$			\$				\$
1 Lincoln County					15	7,375	23	6	305	17	92,500	9,325
2 Wentworth County					5	4,100	9	4	375	9	36,100	4,814
3 Halton County					14	8,200	25	4	170	6	138,200	8,135
4 Peel County					6	4,500	11	1	25	2	31,000	3,550
5 York County					11	6,750	21	6	360	6	38,700	6,207
6 Ontario County					14	5,085	23	4	80	5	50,400	4,570
7 Durham County					26	11,700	37				128,080	12,710
8 Northumberland County					29	13,175	57	10	480	17	112,500	11,100
9 Prince Edward County					80	31,285	143	100	3,559	153	429,851	35,324
10 Bay of Quinte					105	32,925	197	152	6,775	238	425,090	36,369
11 Lennox County					15	4,150	23				76,200	7,093
12 Frontenac County					16	5,392	28	36	1,620	47	42,300	3,797
Totals					336	134,637	597	323	13,749	500	1,600,921	142,994

Return of the kinds, quantities and values of fish caught

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish fresh	Trout, salted	Trout, fresh	Pike	Pickrel, or Dore
<i>Lake Ontario</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Lincoln County		17,220		56,696		50,892		
2 Wentworth County		24,843		24,241		25,730		
3 Halton County	2,247	33,520		88,763		46,511	266	
4 Peel County		5,000		15,000		82,000		
5 York County		1,700		33,099		10,011		
6 Ontario County		3,007		83,309		6,339	158	
7 Durham County		3,239		146,866		25,252		
8 Northumberland County		6,245		204,559		58,265	17,018	400
9 Prince Edward County	250	115,256	1,475	651,804	125	328,714	54,776	7,390
10 Bay of Quinte	425	112,549	300	646,014	100	16,271	149,206	102,938
11 Lennox County		7,120		113,710		45,835	1,112	2,300
12 Frontenac County	300	12,909	21	32,558	730	25,074	27,689	3,202
Totals	3,222	342,608	1,796	2,096,619	955	720,894	250,225	116,230
Values	\$ c. 193 32	\$ c. 13,704 32	\$ c. 215 52	\$ c. 251,594 28	\$ c. 105 05	\$ c. 79,298 34	\$ c. 12,511 25	\$ c. 16,272 20

FISHERIES

the quantity and value of all fishing materials and other fixtures employed in the in the Public Waters of Lake Ontario.

Fishing material												Other fixtures used in fishing.				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
5	525	430					3	205					4	900	1	300
1	20	10														
2	200	175											1	150	4	1,300
2	220	110											3	500	1	300
5	370	535					1	5								
2	190	175							600	6			4	450		
					24	825							1	100		
3	475	335			148	4,830	3	16	6,625	277			3	400		
2	27	40			480	15,553	2	11	8,750	273			31	4,490	5	430
													7	825	7	555
1	20	12			139	4,725			1,800	80			12	3,450	12	2,940
23	2,047	1,822			791	25,933	9	237	17,775	636			66	11,265	30	5,825

during the year 1922, in the Public Waters of Lake Ontario.

Sturgeon	Eels	Perch	Tulibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c
	339	4,454		300	15,680	16,783			28,706	15,821 58
		750			6,629	365				7,050 20
		50				9,510				17,639 59
						7,160				11,306 40
	459	100			14,276	13,495				6,312 01
	782	194		840	556	290				11,018 73
				2,078		2,077				20,759 74
	609	576		3,213	375	23,589				33,398 28
275	38,051	3,564		30,385	60,839	110,487				136,779 47
549	77,669	50,910		115,209	14,922	209,217				134,834 71
100					300	2,036				19,475 89
736	28,937	13,434		25,751	7,427	53,619				17,746 44
1,660	146,846	74,032		177,776	121,004	448,628			28,706	
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$ c.	\$ c.
547 80	17,621 52	3,701 60		12,444 32	4,840 16	17,945 12			1,148 24	432,143 04

ONTARIO

Return of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the year

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
<i>Inland Waters</i>			\$			\$			\$			\$
1 Frontenac County					4	390	8	26	660	42		
2 Lanark and Leeds County					15	3,450	15	58	1,922	79		
3 Grenville, Dundas, Stormont, Glengarry Counties					5	775	6	12	194	13		
4 Prescott, Russell, Carleton and Renfrew Counties					3	900	2	33	497	23	786	144
5 Peterboro and Victoria Counties					1	200	2	8	275	10		
6 Lake Simcoe					8	4,500	20	18	785	18		
7 Temiskaming and Nipissing Districts					10	4,900	21	14	765	12	30,950	4,901
Totals					46	15,115	74	169	5,098	197	31,736	5,045

Return of the kinds, quantities and values of fish caught

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish, fresh	Trout, salted	Trout, fresh	Pike	Pick- erel, or Dore
<i>Inland Waters</i>	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Frontenac County.....							20,076	
2 Lanark and Leeds County.....							17,291	
3 Grenville, Dundas, Stormont, and Glengarry Counties.....							500	
4 Prescott, Russell, Carleton and Renfrew Counties.....							12,727	2,980
5 Peterboro and Victoria Counties.....		2,665					4,016	
6 Lake Simcoe.....		1,097		6,963		34,075		
7 Temiskaming and Nipissing Districts.....		8,246	700	37,673		9,090	50,560	51,583
Totals.....		12,008	700	44,636		43,165	105,170	54,563
Values.....	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
		480 32	84 00	5,356 32		4,748 15	5,258 50	7,638 82

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the 1922, in Inland Waters.

Fishing material												Other fixtures used in fishing.				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
7	70	210			85	3,843							2	245		
13	224	637			157	4,770	2	4	3,800	73			8	750	2	105
2	70	115					2	3	4,500	152			2	200		
1	20	10			47	1,281			2,750	63			14	524		
1	6	5			23	800	10	56					2	100		
10	2,621	3,767			4	120	4	30			151	1,054	1	1,500	3	500
			3	750	14	505							8	16,885	7	890
34	3,011	4,744	3	750	330	11,319	18	93	11,050	288	151	1,054	37	20,204	12	1,495

during the year 1922, in Inland Waters.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
.....	6,728	3,638	.....	53,214	516	71,759	.....	.....	.....	8,609 04
3,980	10,558	1,112	.....	33,973	2,100	88,999	.....	.....	.....	9,522 58
6,751	4,006	1,890	.....	1,335	1,200	2,660	6	.....	.....	3,085 50
315	2,049	15,783	.....	11,848	3,775	41,301	.....	.....	.....	4,824 93
.....	843	.....	.....	8,024	.....	32,928	.....	.....	.....	2,287 36
.....	.....	1,685	.....	245	304,909	23,024	.....	.....	.....	17,846 41
730	8	896	.....	.....	.....	55,759	.....	.....	.....	18,201 14
11,776	24,192	25,004	.....	108,639	312,500	316,430	6	.....	.....	.....
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$ c.	\$ c.
3,886 08	2,903 04	1,250 20	.....	7,604 73	12,500 00	12,657 20	9 60	.....	.....	64,376 96

ONTARIO

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during the

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton-nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
			\$			\$			\$			
1 Kenora and Rainy River Districts.....	7	115	20,400	16	107	44,375	153	100	5,954	75	237,148	39,378
2 Lake Superior.....	21	536	81,000	126	50	28,825	94	68	5,910	100	710,200	75,468
3 Lake Huron(North Channel)	8	224	46,000	39	40	22,550	82	73	7,523	87	285,760	37,707
4 Georgian Bay.....	21	557	126,600	106	99	100,743	206	100	9,650	129	1,228,534	123,017
5 Lake Huron (Proper).....	10	283	59,000	55	58	36,565	128	39	2,155	83	782,535	83,971
6 Lake St. Clair.....					52	22,345	89	105	5,365	155		
7 Lake Erie.....	39	1,142	322,108	248	158	125,785	434	204	16,440	230	1,362,748	165,734
8 Lake Ontario.....					336	134,637	597	323	13,749	500	1,600,921	142,994
9 Inland Waters.....					46	15,115	74	169	5,098	197	31,736	5,045
Totals.....	106	2,857	655,108	590	946	530,940	1,857	1,181	71,844	1,556	6,239,582	673,314

Recapitulation of the kinds, quantities and values

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish fresh	Trout, salted	Trout, fresh	Pike	Pickereel, or Dore
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Kenora and Rainy River District.....				590,249		87,783	488,360	1,041,601
2 Lake Superior.....	27,500	577,065	840	1,198,100	11,723	1,872,321	30,298	164,192
3 Lake Huron (North Channel).....	1,000	18,191	1,150	253,128	5,638	647,954	104,158	164,312
4 Georgian Bay.....	1,300	73,846	508	1,068,604	10,250	1,434,831	107,662	121,592
5 Lake Huron (Proper).....	3,300	177,171	900	67,211	20,804	1,686,451	5,084	160,299
6 Lake St. Clair.....				3,570			25,136	57,138
7 Lake Erie.....		6,306,318	454	751,270		526	143,736	505,070
8 Lake Ontario.....	3,222	342,608	1,796	2,096,619	955	720,894	250,225	116,230
9 Inland Waters.....		12,008	700	44,636		43,165	105,170	54,563
Totals.....	36,322	7,507,207	6,348	6,073,387	49,370	6,493,925	1,259,829	2,384,997
Values.....	\$ c. 2,179 32	\$ c. 300,288 28	\$ c. 761 76	\$ c. 728,806 44	\$ c. 5,430 70	\$ c. 714,331 75	\$ c. 62,991 45	\$ c. 333,899 58

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the year 1922.

Fishing material												Other fixtures used in fishing.				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
.....	.....	.....	61	18,800	46	1,442	.....	.....	.....	.....	.....	.....	98	27,370	74	12,255
.....	.....	.....	53	20,750	.....	.....	.....	.....	9,000	875	.....	.....	26	12,575	18	7,795
.....	.....	.....	129	67,310	20	1,680	.....	.....	2,000	105	.....	.....	45	14,840	34	16,725
7	1,030	1,058	76	63,650	50	1,166	.....	.....	32,600	3,755	.....	.....	35	10,695	37	15,600
12	595	575	83	49,150	3	225	1	5	3,000	240	.....	.....	32	8,650	20	4,200
58	8,639	7,163	225	23,925	2	60	.....	.....	2,450	119	.....	.....	42	22,475	36	7,625
52	14,340	9,754	655	727,500	40	1,026	31	294	7,990	438	.....	.....	114	140,564	64	33,105
23	2,047	1,822	.....	.....	791	25,933	9	237	17,775	636	.....	.....	66	11,265	30	5,825
34	3,011	4,744	3	750	330	11,319	18	93	11,050	288	151	1,054	37	20,204	12	1,495
186	29,662	25,116	1,285	971,835	1,282	42,851	59	629	85,865	6,456	151	1,054	495	268,638	325	104,625

of fish caught during the year 1922.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickered (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
4,169	.....	15,220	130,774	.....	2,640	148,514	136	.....	3,600	265,811 38
23,065	.....	162	78	.....	7,187	113,372	86	.....	250	412,945 43
12,803	.....	19,210	.....	88	16,359	400,645	64	.....	.....	153,381 91
3,499	.....	2,147	75,027	5,361	50,442	87,755	334	.....	.....	324,141 09
10,451	.....	126,327	131,508	1,255	3,140	113,664	634	.....	10,969	248,506 02
8,169	.....	96,185	.....	31,839	313,266	461,477	296	.....	2,400	50,977 59
36,359	7	2,109,027	.....	58,321	233,926	1,227,170	1,467	.....	6,312,589	855,241 79
1,660	146,846	74,032	.....	177,776	121,004	448,628	.....	.....	28,706	432,143 04
11,776	24,192	25,004	.....	108,639	312,500	316,430	6	.....	.....	64,376 96
111,951	171,045	2,467,314	337,387	383,279	1,060,464	3,317,655	3,023	.....	6,358,514	.....
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$	\$ c.	\$ c.
36,943 83	20,525 40	123,365 70	16,869 35	26,829 53	42,418 56	132,706 20	4,836 80	.....	254,340 56	2,807,525 21

Comparative Statement of the Yield of the Fisheries of the Province of Ontario
according to Districts

	1921 lbs.	1922 lbs.	Increase lbs.	Decrease lbs.
Kenora and Rainy River Districts:				
Whitefish, salted.....	700			700
Whitefish, fresh.....	384,664	590,249	205,585	
Trout, salted.....	978			978
Trout, fresh.....	80,342	87,783	7,441	
Pike.....	451,170	488,360	37,190	
Pickeral (Dore).....	972,177	1,041,601	69,424	
Sturgeon.....	1,842	4,169	2,327	
Perch.....	7,865	15,220	7,355	
Tullibee.....	116,654	130,774	14,120	
Catfish.....	51,062			51,062
Carp.....	7,585	2,640		4,945
Mixed and Coarse.....	166,408	148,514		17,894
Caviare.....	25	136	111	
Pickeral (Blue).....		3,600	3,600	
Total.....	2,241,472	2,513,046	271,574	(net increase)
Lake Superior:				
Herring, salted.....	276,535	27,500		249,035
Herring, fresh.....	424,826	577,065	152,239	
Whitefish, salted.....	200	840	640	
Whitefish, fresh.....	1,497,289	1,198,100		299,189
Trout, salted.....	91,224	11,723		79,501
Trout, fresh.....	1,512,942	1,872,321	359,379	
Pike.....	53,977	30,298		23,679
Pickeral (Dore).....	199,208	164,192		35,016
Sturgeon.....	26,305	23,065		3,240
Perch.....		162	162	
Tullibee.....	300	78		222
Carp.....	5,462	7,187	1,725	
Mixed and Coarse.....	72,959	113,372	40,413	
Caviare.....	165	86		79
Pickeral (Blue).....	15,504	250		15,254
Total.....	4,176,896	4,026,239	(net decrease)	150,657
Lake Huron (North Channel):				
Herring, salted.....	905	1,000	95	
Herring, fresh.....	23,734	18,191		5,543
Whitefish, salted.....	2,250	1,150		1,100
Whitefish, fresh.....	664,996	253,128		411,868
Trout, salted.....	5,110	5,638	528	
Trout, fresh.....	1,589,214	647,954		941,260
Pike.....	134,704	104,158		30,546
Pickeral (Dore).....	160,719	164,312	3,593	
Sturgeon.....	12,903	12,803		100
Perch.....	11,863	19,210	7,347	
Tullibee.....	50,161			50,161
Catfish.....	4,109	88		4,021
Carp.....	10,817	16,359	5,542	
Mixed and Coarse.....	411,610	400,645		10,965
Caviare.....	235	64		171
Total.....	3,083,330	1,644,700	(net decrease)	1,438,630

Comparative Statement of the Yield of the Fisheries of the Province of Ontario
according to Districts.—*Continued.*

	1921 lbs.	1922 lbs.	Increase lbs.	Decrease lbs.
Georgian Bay:				
Herring, salted.....	2,750	1,300		1,450
Herring, fresh.....	61,002	73,846	12,844	
Whitefish, salted.....	5,015	508		4,507
Whitefish, fresh.....	550,415	1,068,604	518,189	
Trout, salted.....	17,980	10,250		7,730
Trout, fresh.....	908,966	1,434,831	525,865	
Pike.....	86,813	107,662	20,849	
Pickereel (Dore).....	38,551	121,592	83,041	
Sturgeon.....	2,629	3,499	870	
Perch.....	4,435	2,147		2,288
Tullibee.....	82,320	75,027		7,293
Catfish.....	13,819	5,361		8,458
Carp.....	68,727	50,442		18,285
Mixed and Coarse.....	138,310	87,755		50,555
Caviare.....	20	334	314	
Total.....	1,981,752	3,043,158	1,061,406	(net increase)
Lake Huron (Proper):				
Herring, salted.....	6,100	3,300		2,800
Herring, fresh.....	103,891	177,171	73,280	
Whitefish, salted.....	6,350	900		5,450
Whitefish, fresh.....	70,143	67,211		2,932
Trout, salted.....	12,095	20,804	8,709	
Trout, fresh.....	678,082	1,686,451	1,008,369	
Pike.....	7,067	5,084		1,983
Pickereel (Dore).....	125,223	160,299	35,076	
Sturgeon.....	8,288	10,451	2,163	
Perch.....	127,136	126,327		809
Tullibee.....	121,048	131,508	10,460	
Catfish.....	481	1,255	774	
Carp.....	3,518	3,140		378
Mixed and Coarse.....	101,925	113,664	11,739	
Caviare.....	4,713	634		4,079
Pickereel (Blue).....	546	10,969	10,423	
Total.....	1,376,606	2,519,168	1,142,562	(net increase)
Lake St. Clair:				
Herring, fresh.....	325			325
Whitefish, fresh.....	2,400	3,570	1,170	
Pike.....	54,995	25,136		29,859
Pickereel (Dore).....	37,598	57,138	19,540	
Sturgeon.....	11,885	8,169		3,716
Perch.....	131,304	96,185		35,119
Catfish.....	67,558	31,839		35,719
Carp.....	316,717	313,266		3,451
Mixed and Coarse.....	438,073	461,477	23,404	
Caviare.....	3,801	296		3,505
Pickereel (Blue).....	160	2,400	2,240	
Total.....	1,064,816	999,476	(net decrease)	65,340

Comparative Statement of the Yield of the Fisheries of the Province of Ontario
according to Districts.—*Continued.*

	1921 lbs.	1922 lbs.	Increase lbs.	Decrease lbs.
Lake Erie:				
Herring, fresh.....	5,225,300	6,306,318	1,081,018	.....
Whitefish, salted.....	1,851	454	.....	1,397
Whitefish, fresh.....	964,648	751,270	.....	213,378
Trout, fresh.....	637	526	.....	111
Pike.....	96,692	143,736	47,044	.....
Pickeral (Dore).....	311,021	505,070	194,049	.....
Sturgeon.....	.....	36,359	36,359	.....
Eels.....	15,104	7	.....	15,097
Perch.....	1,964,898	2,109,027	144,129	.....
Tullibee.....	68	.....	.....	68
Catfish.....	45,582	58,321	12,739	.....
Carp.....	345,427	233,926	.....	111,501
Mixed and Coarse.....	1,071,536	1,227,170	155,634	.....
Caviare.....	.....	1,467	1,467	.....
Pickeral (Blue).....	6,366,554	6,312,589	.....	53,965
Total.....	16,409,318	17,686,240	1,276,922	(net increase)
Lake Ontario:				
Herring, salted.....	2,186	3,222	1,036	.....
Herring, fresh.....	1,014,419	342,608	.....	671,811
Whitefish, salted.....	10,488	1,796	.....	8,692
Whitefish, fresh.....	2,156,986	2,096,619	.....	60,367
Trout, salted.....	29,543	955	.....	28,588
Trout, fresh.....	529,302	720,894	191,592	.....
Pike.....	233,143	250,225	17,082	.....
Pickeral (Dore).....	73,305	116,230	42,925	.....
Sturgeon.....	1,798	1,660	.....	138
Eels.....	112,226	146,846	34,620	.....
Perch.....	87,272	74,032	.....	13,240
Tullibee.....	475	.....	.....	475
Catfish.....	183,629	177,776	.....	5,853
Carp.....	62,867	121,004	58,137	.....
Mixed and Coarse.....	415,850	448,628	32,778	.....
Caviare.....	103	.....	.....	103
Pickeral (Blue).....	23,034	28,706	5,672	.....
Total.....	4,936,626	4,531,201	(net decrease)	405,425
Inland Waters:				
Herring, salted.....	350	.....	.....	350
Herring, fresh.....	23,678	12,008	.....	11,670
Whitefish, salted.....	200	700	500	.....
Whitefish, fresh.....	48,138	44,636	.....	3,502
Trout, salted.....	100	.....	.....	100
Trout, fresh.....	10,808	43,165	32,357	.....
Pike.....	119,268	105,170	.....	14,098
Pickeral (Dore).....	148,800	54,563	.....	94,237
Sturgeon.....	69,279	11,776	.....	57,503
Eels.....	36,482	24,192	.....	12,290
Perch.....	22,464	25,004	2,540	.....
Tullibee.....	500	.....	.....	500
Catfish.....	131,674	108,639	.....	23,035
Carp.....	259,706	312,500	52,794	.....
Mixed and Coarse.....	300,096	316,430	16,334	.....
Caviare.....	1,923	6	.....	1,917
Pickeral (Blue).....	100	.....	.....	100
Total.....	1,173,566	1,058,789	(net decrease)	114,777

Comparative Statement of the Yield of the Fisheries of the Province of Ontario.

Kind of Fish.	1921 lbs.	1922 lbs.	Increase lbs.	Decrease lbs.
Herring, salted.....	288,826	36,322	.....	252,504
Herring, fresh.....	6,877,175	7,507,207	630,032	.....
Whitefish, salted.....	27,054	6,348	.....	20,706
Whitefish, fresh.....	6,339,679	6,073,387	.....	266,292
Trout, salted.....	157,030	49,370	.....	107,660
Trout, fresh.....	5,310,293	6,493,925	1,183,632	.....
Pike.....	1,237,829	1,259,829	22,000	.....
Pickrel (Dore).....	2,066,602	2,384,997	318,395	.....
Sturgeon.....	134,929	111,951	.....	22,978
Eels.....	163,812	171,045	7,233	.....
Perch.....	2,357,237	2,467,314	110,077	.....
Tullibee.....	371,526	337,387	.....	34,139
Catfish.....	497,914	383,279	.....	114,635
Carp.....	1,080,826	1,060,464	.....	20,362
Mixed and Coarse.....	3,116,757	3,317,655	200,898	.....
Caviare.....	10,985	3,023	.....	7,962
Pickrel (Blue).....	6,405,898	6,358,514	.....	47,384
Total.....	36,444,372	38,022,017	1,577,645	(net increase)

Statement of the Yield of Fisheries of the Province of Ontario for the Year 1922
as Furnished by the Fishermen's Annual Returns.

Kind of Fish	Quantity lbs.	Price per lb.	Value \$
Herring, salted.....	36,322	\$0 06	2,179 32
Herring, fresh.....	7,507,207	04	300,288 28
Whitefish, salted.....	6,348	12	761 76
Whitefish, fresh.....	6,073,387	12	728,806 44
Trout, salted.....	49,370	11	5,430 70
Trout, fresh.....	6,493,925	11	714,331 75
Pike.....	1,259,829	05	62,991 45
Pickrel (Dore).....	2,384,997	14	333,899 58
Sturgeon.....	111,951	33	36,943 83
Eels.....	171,045	12	20,525 40
Perch.....	2,467,314	05	123,365 70
Tullibee.....	337,387	05	16,869 35
Catfish.....	383,279	07	26,829 53
Carp.....	1,060,464	04	42,418 56
Mixed and Coarse.....	3,317,655	04	132,706 20
Caviare.....	3,023	1 60	4,836 80
Pickrel (Blue).....	6,358,514	04	254,340 56
Total.....	38,022,017	.....	2,807,525 21

Prices based on figures furnished by the Dominion Bureau of Statistics.

VALUE OF ONTARIO FISHERIES, YEARS 1901 TO 1922, INCLUSIVE.

Year	Value		Year	Value.	
	\$	c.		\$	c.
1901	1,428,078	00	1912	2,842,877	09
1902	1,265,705	00	1913	2,674,686	76
1903	1,535,144	00	1914	2,755,293	11
1904	1,793,524	00	1915	3,341,181	41
1905	1,708,963	00	1916	2,658,993	43
1906	1,734,865	00	1917	2,866,424	00
1907	1,935,024	90	1918	3,175,110	32
1908	2,100,078	63	1919	2,721,440	24
1909	2,237,544	41	1920	2,691,093	74
1910	2,348,269	57	1921	2,656,775	82
1911	2,419,178	21	1922	2,807,525	21

STATEMENT OF THE NUMBER AND VALUE OF THE TUGS, GASOLINE, SAIL OR ROW BOATS, NETS, SPEARS, ETC., USED IN THE FISHING INDUSTRY OF THE PROVINCE OF ONTARIO DURING THE YEAR 1922.

	Number	Value \$
Tugs (2,857 tons).....	106	655,108 00
Gasoline Launches.....	946	530,940 00
Sail or Row Boats.....	1,181	71,844 00
Gill Nets (6,239,582 yards).....	....	673,314 00
Seine Nets (29,662 yards).....	186	25,116 00
Pound Nets.....	1,285	971,835 00
Hoop Nets.....	1,282	42,851 00
Dip or Roll Nets.....	59	629 00
Baited Hooks.....	85,865	6,456 00
Spears.....	151	1,054 00
Freezers and Ice Houses.....	495	268,638 00
Piers and Wharves.....	325	104,625 00

Number of men employed on Tugs.....	590
Number of men employed on Gasoline Launches.....	1,857
Number of men employed on Sail or Row Boats.....	1,556

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Jas. G. Sullivan, Jr.

June 18, 1931

Seventeenth Annual Report

Government
Publications

OF THE

GAME AND FISHERIES
DEPARTMENT

1923

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO

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Serials
Section



SEVENTEENTH ANNUAL REPORT

OF THE

Game and Fisheries Department of Ontario

*To the Honourable CHARLES MCCREA,
Minister of Mines.*

SIR,—I have the honour to place before you the Seventeenth Annual Report of the work of the Game and Fisheries Department for the fiscal year ending the 31st day of October, 1923. The gross revenue received amounted to \$621,148.08, and the total expenditures, which include capital expenditures as well as the ordinary expenses, were \$391,422.19, so that a net surplus for the year of \$229,725.89 was obtained.

COMPARATIVE STATEMENT OF REVENUE AND EXPENDITURE, 1916-1923 INC., AS SHOWN IN THE PUBLIC ACCOUNTS.

	Revenue	Expenditure	Surplus
1916.....	\$174,186 71	\$157,681 94	\$16,504 77
1917.....	219,442.94	154,055.17	65,387.77
1918.....	258,671.62	167,795 22	90,876 40
1919.....	346,197.14	185,247 72	160,949 42
1920.....	466,550 86	239,978 13	226,572 73
1921.....	612,972 86	287,608 87	325,363 99
1922.....	737,519 65	347,352 00	390,167 65
1923.....	621,148 08	391,422 19	229,725 89

It will be noted that the total revenue for the current year is lower than for the preceding year, and from the following figures you will note that it is almost entirely due to a smaller revenue in the game receipts.

	1922	1923	Decrease
Revenue from Game.....	\$499,419 77	\$383,477 09	\$115,942 68
Revenue from Fish.....	238,099 88	237,670 99	428 89

By comparing the revenues of this year with the preceding year from royalties on pelts, trapping and fur dealers' licenses, you will note that the major part of the lower revenue may be attributed to a depression in the fur trade during the year, as fewer trapping licenses were sold, fewer pelts trapped and fewer fur dealers' licenses issued.

STATISTICS.

The statistics accompanying this report will show in detail the kinds, quantities and values of commercial fish taken, also the varieties, quantities and locations of fry and fingerlings distributed from Provincial hatcheries, together with other statistics pertaining to the fur trade, as well as other branches of the Department. All of which have been carefully prepared and afford interesting and valuable information.

FISH.

The statistics of the commercial fisheries of the Province are shown in comparison as follows:—

	1921	1922	1923
Gill nets licensed (yards).....	6,181,883	6,239,582	6,018,801
Seines ".....	180	186	172
Pound nets ".....	1,052	1,285	1,265
Hoop ".....	1,445	1,282	1,263
Dip and Roll nets licensed.....	41	59	36
Spears ".....	116	151	125
Hooks.....	78,663	85,865	71,336
Number of men employed.....	3,600	4,003	3,742
Number of tugs.....	116	101	100
Number of gasoline boats.....	924	946	894
Number of sail or row boats.....	1,109	1,181	1,080
Value of boats, ice-houses, wharves and twine.....	\$3,151,810 00	\$3,352,410 00	\$2,807,368 00
Aggregate catch in pounds.....	36,444,372	38,022,017	38,594,682
Value to fishermen.....	\$2,656,775 82	\$2,807,525 21	\$2,886,398 76

ANGLING.

The fee for a non-resident angling permit in the year 1920 was \$2.00, while in 1921 the fee was raised to \$5.00, and for comparison purposes the revenues received from this source from 1920 to 1923 inclusive, were as follows:—

	1920	1921	1922	1923
Revenue from Angling Permits....	\$30,706 85	\$56,565 00	\$63,132 00	\$77,856 75

Residents are permitted to angle without a permit or fee, except on such territories as are legally prohibited. Residents are charged a fee for angling in the waters of Lake Nipigon and Nipigon River. The reports received from anglers throughout the Province would show that game fish are becoming more plentiful and reflects the results obtained from the distribution of fry and fingerlings from the Provincial hatcheries in recent years.

HATCHERIES.

During the year still further progress has been made towards the expansion of the Provincial hatchery systems by completing a modern hatchery at Glenora, which has now a larger capacity than any other hatchery in the Province. This hatchery is located on the site purchased last year at Glenora in Prince Edward County, and as it has a dependable water supply by gravity a large distribution can be made from this point each year. This is the first hatchery built in the eastern part of the Province, and its capacity will supply the needs of a large area that has formerly been supplied from hatcheries at a greater distance. A complete report in detail of the waters stocked and the varieties distributed will be shown elsewhere in this report, but the following is a summary of this year's distribution, together with a summary of the previous year's distribution, which will show an increase that is gratifying.

	1922	1923
Whitefish Fry.....	189,775,000	264,400,000
Pickereel Fry.....	43,510,000	36,140,000
Salmon Trout Fingerlings and Fry.....	7,815,000	12,410,100
Steel Head Salmon Fry.....	5,300	.....
Herring Fry.....	26,250,000	24,000,000
Rainbow Trout Fry.....	21,000	1,100
Speckled Trout Fingerlings and Fry.....	2,184,075	2,328,800
Black Bass Fingerlings and Fry.....	613,500	785,000
Parent Black Bass.....	937	997
	270,174,812	340,065,997

The demand for fry and fingerlings is still very great, and each year the demand is greater than the supply, although remarkable increased deliveries have been made, particularly since 1920, and for comparison purposes the following figures would show the total distribution from 1912 to 1923, inclusive:—

1912.....	150,000	1918.....	58,356,631
1913.....	173,815	1919.....	22,361,748
1914.....	598,630	1920.....	77,783,360
1915.....	1,697,425	1921.....	155,347,142
1916.....	1,570,450	1922.....	270,174,812
1917.....	2,156,928	1923.....	340,065,997

GAME SANCTUARIES.

Further areas have been created during the year as Crown Game Preserves under the authority of Orders-in-Council, and aside from the Provincial Parks, the following is a complete list of the areas:—

Miner Farm Sanctuary.....	Essex County.
Peasemarsch Farm Sanctuary.....	Grey County.
Nopiming Game Sanctuary.....	Carleton and Renfrew Counties.
Eugenia Fish and Game Preserve.....	Grey County.
Peel Game Preserve.....	Peel County.
Dumfries Game Preserve.....	Waterloo and Brant Counties.
Falcon Game Preserve.....	District of Kenora.
Chippewa Game Preserve.....	District of Thunder Bay.
Wilder Lake Preserve.....	Grey County.
Midland Game Preserve.....	Simcoe County.

The increase in the number of Crown Game Preserves from year to year will tend towards improving the supply of wild life in the localities in which they are located. Areas that have been set aside up to the present time are not extensive, and in some cases very few fur-bearing animals are located therein. I would, therefore, strongly recommend that immediate steps be taken to provide for one or more sanctuaries in that part of the Province that is suitable through natural conditions to provide for the apparent present need of conservation to all fur-bearing animals, and such area to be of sufficient size, as a natural increase therefrom would, to a great extent counter-balance the large number of pelts that have been taken out of the Province, particularly during the past few years.

The propagation of English ring-necked pheasants on the Eugenia Crown Game Preserve is being continued with marked success, and this year approximately 8,000 eggs were produced.

PLANTING OF WILD RICE.

A supply of wild rice was again distributed to each district warden, who was responsible for the planting of same in waters to which the general public have access. The Department has received the co-operation and the appreciation of all sportsmen and local game associations in this work, and the planting of wild rice was successful in the majority of waters in which it has been sown, and I trust the policy of an annual distribution will be continued.

GAME.

Deer are reported to be quite scarce in some districts, while quite plentiful in others, but on the whole it is considered that fewer deer were taken. Returns from sportsmen are not required by the Department and, therefore, definite figures cannot be obtained as to the quantity of game animals taken each year.

Moose are not reported as plentiful except in a few districts.

A comparison of the number of deer and moose licenses sold for three years is as follows:—

	1921	1922	1923
Resident Moose.....	1,989	1,584	1,098
Resident Deer.....	18,689	20,504	17,877
Non-resident Hunting.....	950	1,256	1,247

Ruffed Grouse (commonly known as partridge) are reported to be very plentiful, and the "limit" in number was easily obtained.

Sharp-tailed Grouse or *Prairie Hen* are reported to be very plentiful in the District of Rainy River, although there is no open season for the taking of these birds.

Quail are still protected by a close season, and are reported to be in fair numbers in the Counties of Essex and Kent.

Pheasants are protected by a close season, and are reported to be very plentiful in the Niagara Peninsula.

Ducks and *Geese* are reported to be very plentiful and the season has been a satisfactory one.

FURS.

The catch of fur-bearing animals shows a decrease from the preceding year, and a general depression in the fur trade appears to be responsible to some extent, as a much smaller number of trappers obtained licenses and a corresponding fewer number of fur dealers.

Beaver.—Fewer beaver were taken than in the preceding year, and are reported to be scarce.

Otter are reported to be becoming scarce.

Mink and *Fisher* are still being taken in large numbers.

Marten are reported to be becoming scarce.

Muskrat.—A satisfactory catch of muskrat was taken despite the fact that there was a very late season last spring, and they are reported to be becoming quite plentiful.

COMPARISON OF PELTS EXPORTED AND TANNED FOR THE YEARS 1921-2-3.

	1921	1922	1923
Beaver.....	95,479	93,971	70,684
Otter.....	4,759	5,309	3,997
Fisher.....	2,602	2,657	2,239
Marten.....	6,533	7,327	4,704
Mink.....	42,667	78,487	58,634
Muskrat.....	479,866	554,888	478,820
Bear.....	1,494	2,137	1,447
Fox (Cross).....	287	469	1,154
Fox (Red).....	5,282	11,272	12,329
Fox (Silver or Black).....	153	87	205
Fox (White).....	351	1,765	1,501
Fox (not specified).....	23	170	34
Lynx.....	591	836	1,177
Raccoon.....	11,951	20,344	15,752
Skunk.....	47,121	73,219	54,770
Weasel.....	58,898	94,399	61,603
Wolverine.....	12	6	20

In addition to the above list there were, during the year, 395 ranch-raised fox that were either exported alive or the pelts therefrom exported or tanned.

The estimated value to the trapper for the pelts taken in 1923, based on an average of the prices paid for the year, is \$3,182,395.53.

FUR FARMING.

Two hundred and eighty-four fur farming permits were issued for 1923, as compared with 141 permits issued for the previous year, and for comparison purposes the following is a list of animals stocked on fur farms for the years 1922 and 1923.

	1922	1923
Beaver.....	4	2
Fisher.....	3	6
Fox (Cross).....	270	361
Fox (Red).....	206	323
Fox (Silver black).....	1,088	2,171
Lynx.....	2	2
Mink.....	94	73
Muskrat.....	..	163
Opossum.....	6	..
Raccoon.....	50	130
Skunk.....	82	46
	1,805	3,277

ENFORCEMENT OF THE ACT.

The services performed by the wardens, special patrol officers and overseers throughout the Province for the enforcement of the Act and Regulations, were carried out generally with efficiency, and with a view of co-operating with the Department's policy.

During the year a steel patrol boat was purchased and equipped, in accordance with the needs of the patrol service. This boat has carried on very effective work on all of the Great Lakes during the year, and has filled a long felt want in the fisheries protective service.

In regard to the enforcement of the Act and for the conservation of all wild life the earnest co-operation of the public sportsmen is requested.

SUMMARY OF CONVICTIONS, FINE AND CONFISCATIONS FOR THE YEAR.

Convictions.....	861
Fines collected.....	\$18,155 29
Sale of confiscations.....	10,253 86

The articles confiscated include: 6,057 pelts, 15,711 pounds of fish, 29,769 yards gill nets, 182 gill nets, 17 hoop nets, 25 dip nets, 4 seines, 18 pound nets, 16 trap nets, 17 gasoline boats, 48 row-boats, 6 tugs, 6 motor cars, 600 traps and 3 canoes.

All confiscations are sold at advertised sales by tender, other than such articles as are sold by the Department to the former owner, when circumstances warrant.

The thanks of the Department are due to the transportation companies that furnished assistance and co-operation in the distributing of fry, and I wish to also express appreciation of the co-operation of the Federal Government officials in all matters in which they are concerned, pertaining to fish and game and the enforcement of the Regulations in connection therewith. A number of fish and game protective associations have also rendered valuable assistance to the Department in their efforts to conserve the fish and game of the Province. The results obtained by the Department are to no small extent due to the loyal support given by the staff, not only to those who are in the inside service, but also to those who are in the field in the outside service of the Department.

All statistics referred to will be found elsewhere in this report, together with many other statistics in detail.

It is with deep regret that I have to report that during the year death has removed a most efficient officer in the person of Captain John Fleming, who occupied the position of District Warden with headquarters at Orillia.

All of which is respectfully submitted.

I am, Sir,

Your obedient servant,

(Sgd.) D. McDONALD,
Deputy Minister of Game and Fisheries.

REVENUE RECEIVED BY DEPARTMENT OF GAME AND FISHERIES
DURING YEAR ENDING OCTOBER 31st, 1923.

GAME

Royalty.....	\$75,313 42	
Indian Coupons.....	55,199 00	
Trappers' Coupons.....	32,360 00	
Trappers' Licenses.....	51,227 05	
Non-Resident Hunting Licenses.....	31,175 00	
Resident Deer Licenses.....	53,633 50	
Resident Moose Licenses.....	5,490 00	
Fur Dealers' Licenses.....	51,001 80	
Fur Farmers' Permits.....	1,463 00	
Tanners' Licenses.....	190 00	
Game Dealers' Licenses.....	454 00	
Hotel and Restaurant Licenses, &c.....	408 00	
Cold Storage Licenses.....	140 00	
Guides' Licenses.....	2,068 00	
Fines.....	14,552 48	
Sales.....	8,801 84	
		<hr/>
		\$383,477 09

FISHERIES

Fishing Licenses.....	115,930 00	
Royalty.....	29,878 51	
Angling Permits.....	77,856 75	
Fines.....	3,602 81	
Sales.....	1,452 02	
Miscellaneous.....	8,950 90	
		<hr/>
		\$237,670 99
Total.....		<hr/>
		\$621,148 08

WATERS STOCKED WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1923

Small-Mouthed Black Bass Fry and Fingerlings

Waters	County or District	Quantity
Nettleton Lake.....	Algoma.....	8,000
Lake Deborne.....	".....	4,000
Stringer Lake.....	".....	4,000
Blue Lake.....	Brant.....	5,000
I. L. Kitchen Lake.....	".....	5,000
Lake Chesley.....	Bruce.....	8,000
Poechmaur Lake.....	".....	5,000
Brunton Mill Dam.....	".....	2,500
Lake Huron.....	".....	10,000
Saugeen River.....	".....	15,000
Rideau River.....	Carleton.....	10,000
Scugog Lake.....	Durham.....	10,000
Kettle River.....	Elgin.....	5,000
Lake Pinafore.....	".....	2,500
Sharbot Lake.....	Frontenac.....	10,000
Eagle Lake.....	".....	10,000
Loughborough Lake.....	".....	10,000
Shaw's Lake.....	".....	5,000
Lucky Lake.....	".....	5,000
St. Lawrence River.....	Glengarry.....	10,000
Gorrie Pond.....	Huron.....	4,000
Grand River.....	Haldimand.....	10,000
Gull Lake.....	Haliburton.....	2,500
Barnam Lake.....	".....	5,000
South Lake.....	".....	5,000
Cedar Lake.....	".....	2,500
Boach Lake.....	".....	2,500
Devil's Lake.....	".....	2,500
Day's Lake.....	".....	2,500
Dack's Lake.....	".....	2,500
Black Lake.....	".....	5,000
Wilbermere Lake.....	".....	2,500
Percy Lake.....	".....	2,500
Lake of Islands.....	".....	2,500
Deer Lake.....	".....	2,500
Twelve Mile Creek.....	Halton.....	8,000
Stoco Lake.....	Hastings.....	5,000
Crow Lake.....	".....	8,000
Moirs River.....	".....	8,000
Two Sisters.....	".....	4,000
Lake of Islands.....	".....	4,000
Rondeau Bay.....	Kent.....	10,000
Dalhousie Lake.....	Lanark.....	8,000
Black Lake.....	".....	5,000
Clayton Lake.....	".....	2,500
Otty Lake.....	".....	5,000
Christie Lake.....	".....	2,500
Robertson's Lake.....	".....	4,000
Bennett's Lake.....	".....	2,500
Charleston Lake.....	Leeds.....	10,000
Rideau Lakes.....	".....	19,000
Sand Lake.....	".....	4,000
Upper Beverly Lake.....	".....	5,000
Wolf Lake.....	".....	4,000
Varty Lake.....	Lennox & Addington.....	5,000
Napanee River.....	".....	5,000
Beaver Lake.....	".....	2,000
Thames River.....	Middlesex.....	10,000
Clark's Mill Pond.....	".....	2,500
Pond Mills.....	".....	2,500
Currie's Pond.....	".....	2,500
Whittaker Lake.....	".....	2,500
Foster Lake.....	".....	2,500
Lake Manitou.....	Manitoulin.....	8,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1923—*Continued**Small-Mouthed Black Bass Fry and Fingerlings*

Waters	County or District	Quantity
Beasley Lake.....	Muskoka.....	5,000
Peninsular Lake.....	".....	7,500
Sparrow Lake.....	".....	10,000
Three Mile Lake.....	".....	5,000
Muldrew Lake.....	".....	10,000
Shadow Lake.....	".....	2,500
Long Lake.....	".....	5,000
Koshee Lake.....	".....	5,000
Buck Lake.....	".....	2,500
Maenhood Lake.....	".....	2,500
Stewart Lake.....	".....	5,000
Cache Lake, Algonquin Park.....	Nipissing.....	5,000
Lake Nipissing.....	".....	10,000
Four Mile Lake.....	".....	5,000
Lake Nosbising.....	".....	5,000
Crow Bay.....	Northumberland.....	2,500
Presque Isle Bay.....	".....	5,000
Orland Mill Pond.....	".....	2,500
Trent River, including Cassidy's Bay.....	".....	8,000
Cramahe's Lake.....	".....	2,500
Rice Lake.....	".....	10,000
Waterworks Pond.....	Oxford.....	2,500
Smith's Pond.....	".....	2,500
Maplehurst Lake.....	".....	2,500
North Lake.....	Parry Sound.....	2,500
Little Clam Lake.....	".....	2,500
Harris Lake.....	".....	5,000
Deer Lake.....	".....	2,500
Ahmic Lake.....	".....	5,000
Bolger Lake.....	".....	2,500
Greater Doe Lake.....	".....	2,500
Lovering Lake.....	".....	2,500
Indian River.....	Peterborough.....	5,000
Pigeon Lake.....	".....	10,000
Stoney Lake.....	".....	15,000
Clear Lake.....	".....	5,000
Chemong Lake.....	".....	10,000
Otonabee River.....	".....	5,000
Rice Lake.....	".....	5,000
Credit River.....	Peel.....	10,000
Lake Doré.....	Renfrew.....	4,000
Mink Lake.....	".....	4,000
Musktrat Lake.....	".....	4,000
Calabogie Lake.....	".....	5,000
Silver Lake.....	".....	4,000
Green Lake.....	".....	4,000
Bass Lake.....	Simcoe.....	5,000
Lake Couchiching.....	".....	10,000
Severn River.....	".....	20,000
Little Lake.....	".....	5,000
Orr Lake.....	".....	5,000
Park Lake.....	".....	5,000
Kempenfeldt Bay (Lake Simcoe).....	".....	5,000
Clear Lake.....	Sudbury.....	4,000
Lovering Lake.....	".....	4,000
Elbo Lake.....	".....	4,000
Ramsay Lake.....	".....	8,000
Chapleau Lake.....	".....	4,000
Kenogami Lake.....	Timiskaming.....	5,000
Twin Lakes.....	".....	5,000
Black River.....	".....	5,000
Lake of Pines.....	".....	5,000
Sturgeon Lake.....	Victoria.....	15,000
Cameron Lake.....	".....	10,000
Balsam Lake.....	".....	5,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1923—*Continued**Small-Mouthed Black Bass Fry and Fingerlings*

Waters	County or District	Quantity
Big Mud Turtle Lake.....	Victoria.....	5,000
Pigeon Creek.....	".....	5,000
Grand River.....	Waterloo.....	10,000
New Dundee Lake.....	".....	5,000
Wellesley Dam.....	".....	5,000
Bamburg Lake.....	".....	5,000
Puslinch Lake.....	Wellington.....	5,000
Speed River.....	".....	5,000
Gibson Lake.....	Welland.....	4,000
Hamilton Bay.....	Wentworth.....	10,000

Parent Black Bass

Waters	County or District	Quantity
Bad Vermilion Lake.....	Rainy River.....	250
Ramsay Lake.....	Sudbury.....	250
Loon Lake.....	Thunder Bay.....	243
Nipigon Bay.....	" ".....	254

Speckled Trout Fry and Fingerlings

Waters	County or District	Quantity
Lake Mabel.....	Algoma.....	10,000
St. Mary's River.....	".....	10,000
Clear Lake.....	".....	10,000
Agawa River.....	".....	60,000
Morrison River.....	".....	10,000
Mongoose Lake.....	".....	10,000
Spruce Lake.....	".....	10,000
Loon Lake.....	".....	10,000
Pine Lake.....	".....	10,000
Hobon Lake.....	".....	10,000
Frater Lake.....	".....	10,000
South Chippewa River.....	".....	10,000
Batchewana River.....	".....	10,000
Sand Lake.....	".....	20,000
Speckled Trout Brook.....	".....	10,000
Lake Elizabeth.....	".....	10,000
Silver Creek.....	".....	30,000
Driving Creek.....	".....	10,000
Beryl Lake.....	".....	10,000
Coldwater Creek.....	".....	7,000
Root River.....	".....	24,000
Lonely Lake.....	".....	10,000
Little Carp Creek.....	".....	10,000
St. Ann.....	".....	10,000
Switzer's Creek.....	Brant.....	10,000
Barker's Creek.....	".....	10,000
Black River.....	Bruce.....	5,000
Thomson's Creek.....	".....	5,000
Monkman's Creek.....	".....	5,000
Sullivan Creek.....	".....	5,000
Wolf Creek.....	".....	5,000
Judge's Creek.....	".....	10,000
Kirkland's Creek.....	".....	5,000
Rourke's Creek.....	".....	5,000
Formosa Spring Creek.....	".....	5,000
Stoney Spring Creek.....	".....	5,000
Cavan Creek tributary.....	Durham.....	5,000
Tyrone Creek and tributaries.....	".....	12,500
Wilmot's Creek.....	".....	5,000
Courtice Creek.....	".....	5,000
Haydon Stream tributary.....	".....	2,500
Smith's Creek.....	".....	4,500
Devitt's Creek.....	".....	2,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1923—*Continued**Speckled Trout Fry and Fingerlings*

Waters	County or District	Quantity
Spring Creek.....	Durham.....	5,000
Pigeon Creek tributary.....	".....	5,000
Mountjoy's Creek.....	".....	2,000
Steven's Creek and tributaries.....	".....	12,500
Thompson's Creek.....	".....	2,500
Glass Creek.....	".....	5,000
Kendal Creek.....	".....	5,000
Cawker's Creek.....	".....	2,500
Tucker's Creek.....	".....	2,500
Wintermute Stream.....	".....	10,000
Baldwin Creek.....	".....	2,000
Brown's Pond.....	".....	1,000
Esson's Creek.....	Dufferin.....	6,000
Hill Creek.....	".....	5,000
Curt's Creek.....	".....	5,000
Phillip's Creek.....	".....	5,000
Boyles Creek.....	".....	6,000
Credit River.....	".....	6,000
Grand River.....	".....	10,000
Buck Creek.....	Elgin.....	5,000
Spring Creek.....	".....	10,000
Gunstone Creek.....	".....	5,000
Smith's Spring Creek.....	".....	10,000
Cole Creek.....	Frontenac.....	10,000
Skunk Creek.....	Grey.....	3,000
Patterson's Creek.....	".....	2,000
Wm. McGregor's Stream.....	".....	2,000
Saugeen River and tributaries.....	".....	34,000
Beaver River.....	".....	5,000
Ed. Heft's Stream.....	".....	2,000
Park's Lake.....	".....	2,000
Sydenham River, "Harrison's Park".....	".....	40,000
Holstein Mill Pond.....	".....	2,000
Spring Creek, near Priceville.....	".....	2,000
Petty's Creek.....	".....	2,000
Varney Creek.....	".....	2,000
Eugenia Crown Game and Fish Preserve Lake.....	".....	100,000
Beatty Saugeen River.....	".....	2,000
Stream near Meaford.....	".....	5,000
Spring Brook (Meaford).....	".....	5,000
Hamel's Creek.....	".....	2,000
Lake on Lot 5, Concession 3.....	".....	2,000
Branch Big Head River.....	".....	10,000
Spring Creek.....	".....	2,000
Maitland River tributary.....	".....	5,000
Sharp's Creek.....	Huron.....	5,000
Patterson's Creek.....	".....	5,000
McMichael's Creek.....	".....	5,000
Murray's Creek.....	".....	5,000
Benmiller Stream.....	".....	5,000
Nine Mile River.....	".....	7,500
Naftel's Creek.....	".....	5,000
Hollow Lake.....	Haliburton.....	8,000
Clement Lake.....	".....	2,000
Twelve Mile Creek.....	Halton.....	10,000
Creeks near Acton.....	".....	5,000
Lake St. Peter.....	Hastings.....	5,000
Squire's Creek.....	".....	10,000
Rawdon Creek.....	".....	15,000
Spring Creek.....	".....	5,000
McAvoy Stream.....	".....	5,000
Mayhew's Mill Pond.....	".....	4,800
Carls Creek.....	".....	5,000
Sager's Creek.....	".....	5,000
Sand Lake.....	Leeds.....	10,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1923—*Continued**Speckled Trout Fry and Fingerlings*

Waters	County or District	Quantity
Twenty Mile Creek.....	Lincoln.....	2,000
Duncrief's Creek.....	Middlesex.....	7,000
Spring Brooks.....	".....	7,000
Thames River tributary.....	".....	8,000
Clark's Mill Pond.....	".....	5,000
Mill Creek.....	".....	7,000
Douty Creek.....	".....	7,000
River Lynn.....	".....	7,000
Blue Jay River.....	Manitoulin.....	20,000
Grimesthorpe Creek.....	".....	5,000
Muskoka River tributary.....	Muskoka.....	5,000
Patterson's Creek.....	Norfolk.....	5,000
Kent Creek.....	".....	10,000
Winter's Creek.....	".....	10,000
McMichael's Spring Creek.....	".....	7,000
Black Creek.....	".....	5,000
Gravel Pit Pond.....	".....	5,000
Lake Hunger Outlet Creek.....	".....	5,000
Dower Creek.....	".....	5,000
Castleton Creek.....	Northumberland.....	5,000
Woodland Creek.....	".....	5,000
Eddystone Creek.....	".....	6,000
Mutton's Creek.....	".....	8,000
Allen's Creek.....	".....	2,000
Coal Creek.....	".....	2,000
Spring Valley Reservoir.....	".....	2,000
West Creek.....	".....	2,000
Cronk's Creek.....	".....	2,000
Montgomery Stream.....	".....	5,000
Miller's Creek.....	".....	2,000
Owen's Creek.....	".....	2,000
Cedar Creek.....	".....	2,000
Tweedle's Creek.....	".....	2,000
Jackson's Creek.....	".....	2,000
Cole Creek.....	".....	4,000
Piper Creek.....	".....	2,000
Burnley Stream.....	".....	5,000
Hayden's Creek.....	".....	5,000
Camborne Creek.....	".....	5,000
Smylie Creek.....	".....	5,000
Syke's Creek.....	".....	5,000
Bredin's Creek.....	".....	5,000
Shelter Valley Creek.....	".....	2,000
Spring Creek, near Brighton.....	".....	5,000
Large Creek, near Brighton.....	".....	2,000
Snelgrove's Creek.....	".....	2,000
Hodgson Creek tributary.....	".....	5,000
Maple Grove Creek.....	".....	2,000
Dawson Creek.....	".....	2,000
Valentine's Creek.....	".....	2,000
McGregor's Creek.....	".....	2,000
Warren's Creek.....	".....	2,000
Hannah's Creek.....	".....	2,000
Forestell's Creek.....	".....	2,000
Wamsley Creek.....	".....	2,000
Spring Creek.....	Ontario.....	10,000
Black Creek.....	".....	10,000
Cedar Creek.....	Oxford.....	8,000
Deer Creek.....	".....	8,000
Brooksdale Stream.....	".....	8,000
Cooley Pond.....	".....	5,000
Venison Creek.....	".....	8,000
Black Lake.....	Parry Sound.....	2,000
Lake Bernard.....	".....	4,000
Trout Lake.....	".....	2,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1923—*Continued**Speckled Trout Fry and Fingerlings*

Waters	County or District	Quantity
Trout Creek.....	Prince Edward.....	5,000
Stinson's Mill Creek.....	".....	10,000
Ouse Creek.....	Peterborough.....	10,000
Spillsbury's Creek.....	".....	10,000
Plato Creek.....	".....	10,000
Moffat Stream.....	Peel.....	6,000
Columbia Stream.....	".....	5,000
Mason's Creek.....	".....	5,000
Bingham's Creek.....	".....	5,000
Doherty's Creek.....	".....	5,000
Coffey's Creek.....	".....	5,000
Humber River.....	".....	5,000
Spring Creek on Wm. Sutherland's.....	Perth.....	5,000
Hill's Pond.....	".....	10,000
Silver Spring Dam.....	".....	5,000
MacKay's Creek.....	".....	10,000
Pipestone River.....	Rainy River.....	5,000
Little Canoe River.....	".....	5,000
Heart Lake.....	Renfrew.....	10,000
Mad River.....	Simcoe.....	5,000
Boyne River.....	".....	5,000
Coldwater River.....	".....	5,000
Sturgeon River.....	".....	10,000
Noisy River.....	".....	5,000
Nottawasaga River.....	".....	2,000
Parker's Creek.....	".....	5,000
Pretty Rivers.....	".....	5,000
Avon River.....	".....	5,000
Spring Ponds.....	".....	5,000
Lafontaine Creek.....	".....	5,000
Willow Creek.....	".....	5,000
Silver Creek.....	".....	15,000
Twin Lakes.....	Sudbury.....	10,000
Ruff's Creek.....	".....	20,000
Massey Creek.....	".....	20,000
Nelson River.....	".....	10,000
Movien Lake.....	".....	10,000
Allen Lake.....	Thunder Bay.....	25,000
Trout Lake.....	".....	10,000
Shebandawan River.....	".....	10,000
Lake Wideman.....	".....	10,000
Lower Twin Lake.....	".....	10,000
Upper Twin Lake.....	".....	10,000
Loon Lake.....	".....	10,000
Silver Lake.....	".....	20,000
Pitch Creek.....	".....	10,000
Whitewood Creek.....	".....	10,000
Pitt's Creek.....	".....	10,000
Corbett's Creek.....	".....	10,000
Slate River.....	".....	10,000
Pine River.....	".....	10,000
Cedar Creek.....	".....	10,000
Neebing River.....	".....	10,000
Sunshine Creek.....	".....	10,000
Oliver Lake.....	".....	10,000
Brulu Creek.....	".....	10,000
Nipigon River.....	".....	200,000
Stewart Lake.....	".....	25,000
Gravel Lake.....	".....	10,000
Castle Lake.....	".....	10,000
Clearwater Lake.....	".....	20,000
Anderson Lake.....	".....	10,000
Grass Lake.....	".....	10,000
Windy Lake.....	".....	10,000
Niagara Lake.....	".....	10,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1923—*Continued**Speckled Trout Fry and Fingerlings*

Waters	County or District	Quantity
Spirit Lake.....	Thunder Bay.....	10,000
Hilma Lake.....	" ".....	10,000
Sunday Creek.....	Timiskaming.....	10,000
Potter's Lake.....	" ".....	15,000
Long Lake.....	" ".....	15,000
Fairy Lake.....	" ".....	10,000
Lake Timagami.....	" ".....	10,000
Mill Creek.....	Waterloo.....	5,000
Sweitzer's Dam.....	" ".....	5,000
Schmidt's Stream.....	" ".....	5,000
Schnarr's Creek.....	" ".....	5,000
Cook's Creek.....	" ".....	5,000
Patterson's Creek.....	" ".....	5,000
Bloomingtondale Creek.....	" ".....	5,000
Beverley Creek.....	Wentworth.....	10,000
Strabane Creek.....	" ".....	20,000
Dundas Creek.....	" ".....	10,000
Britton Creek.....	" ".....	10,000
Binkley Creek.....	" ".....	10,000
Moir's Creek.....	Wellington.....	5,000
Eden Mills' Stream.....	" ".....	8,000
Rothsay Creek.....	" ".....	8,000
Rea's Creek.....	" ".....	10,000
McDonald's Creek.....	" ".....	5,000
Henderson's Creek.....	" ".....	5,000
Rodger's Creek.....	" ".....	8,000
Speed River.....	" ".....	5,000
Credit River.....	" ".....	5,000
Hanlon's Stream.....	" ".....	4,000
Spring Creeks.....	Welland.....	20,000
Spring Creeks.....	York.....	10,000
Eastern Black River.....	" ".....	10,000

Salmon Trout Fry and Fingerlings

Waters	County or District	Quantity
Trout Lake.....	Algoma.....	10,000
Lake Superior.....	" ".....	3,440,000
North Channel.....	" ".....	2,930,000
Lake La Cloche.....	" ".....	40,000
Mud Lake.....	" ".....	25,000
Basswood Lake.....	" ".....	25,000
Round Lake.....	" ".....	25,000
Lake Maud.....	" ".....	25,000
Matintinde Lake.....	" ".....	25,000
Mitchell Lake.....	" ".....	10,000
Island Lake.....	" ".....	25,000
Lake Louzon.....	" ".....	25,000
Lonely Lake.....	" ".....	25,000
Canoe Lake.....	" ".....	10,000
Echo Lake.....	" ".....	25,000
Hunter Lake.....	" ".....	10,000
Weashcog Lake.....	" ".....	25,000
Mississagagon Lake.....	Frontenac.....	15,000
Sharbot Lake.....	" ".....	35,000
Upper St. Andrews Lake.....	" ".....	10,000
Trout Lake.....	" ".....	10,000
Big Lake.....	" ".....	20,000
Grindstone Lake.....	" ".....	25,000
Buckshot Lake.....	" ".....	30,000
Brule Lake.....	" ".....	40,000
Kashamaganog Lake.....	Haliburton.....	10,000
Drag Lake.....	" ".....	10,000
Spruce Lake.....	" ".....	10,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1923—*Continued**Salmon Trout Fry and Fingerlings*

Waters	County or District	Quantity
Gull Lake.....	Haliburton.....	10,000
Davis Lake.....	".....	10,000
East Lake.....	".....	10,000
Mountain Lake.....	".....	10,000
Papineau Lake.....	Hastings.....	10,000
Eagle Lake.....	".....	10,000
Baptiste Lake.....	".....	10,000
Trout Lake.....	".....	10,000
L'Amable Lake.....	".....	10,000
Upper Manitou Lake.....	Kenora.....	50,000
Lake Lulu.....	".....	10,000
Minnitako Lake.....	".....	50,000
Agenak Lake.....	".....	50,000
Pelican Lake.....	".....	50,000
Silver Lake.....	Lanark.....	10,000
Pike Lake.....	".....	10,000
Rideau Lakes.....	".....	25,000
Rideau Lakes.....	Leeds.....	25,000
Charleston Lake.....	".....	25,000
Red Horse Lake.....	".....	10,000
Grippen Lake.....	".....	10,000
Beaver Lake.....	Lennox and Addington.....	10,000
Westlemkoon Lake.....	".....	10,000
Muskoka Lake.....	Muskoka.....	25,000
Joseph Lake.....	".....	25,000
Lake of Bays.....	".....	15,000
Prospect Lake.....	".....	10,000
Lake Rosseau.....	".....	25,000
Clear Lake.....	".....	20,000
Cache Lake, Algonquin Park.....	Nipissing.....	250,000
Four Mile Lake.....	".....	10,000
Trout Lake.....	".....	10,000
Little Trout Lake, Algonquin Park.....	".....	25,000
Clear Lake, Algonquin Park.....	".....	50,000
Doe Lake, Algonquin Park.....	".....	40,000
Rainy Lake, Algonquin Park.....	".....	25,000
Hilliard Lake, Algonquin Park.....	".....	50,000
Brule Lake, Algonquin Park.....	".....	50,000
Cranberry Lake, Algonquin Park.....	".....	50,000
Canoe Lake, Algonquin Park.....	".....	100,000
Joe Lake, Algonquin Park.....	".....	50,000
Lady Joe Lake, Algonquin Park.....	".....	25,000
Source Lake, Algonquin Park.....	".....	100,000
Islet Lake, Algonquin Park.....	".....	150,000
Buck Lake, Algonquin Park.....	".....	35,000
Horseshoe Lake.....	Parry Sound.....	10,000
Three Mile Lake.....	".....	15,000
Eagle Lake.....	".....	10,000
Lake Bernard.....	".....	15,000
Loon Lake.....	Peterboro.....	100
Elbow Lake.....	Rainy River.....	50,000
Steep Rock Lake.....	".....	50,000
Baril Lake.....	".....	50,000
Rainy Lake.....	".....	50,000
Mink Lake.....	".....	50,000
Laurawell Lake.....	Renfrew.....	10,000
Lake Dore.....	".....	15,000
Muskkrat Lake.....	".....	15,000
Calabogie Lake.....	".....	10,000
Golden Lake.....	".....	10,000
Lake Simcoe.....	Simcoe.....	20,000
Trout Lake.....	Sudbury.....	10,000
Bigwood Lake.....	".....	15,000
Lake Nipigon.....	Thunder Bay.....	1,000,000
Kashabowie Lake.....	".....	50,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1923—*Continued**Salmon Trout Fry and Fingerlings*

Waters	County or District	Quantity
Long Lac.....	Thunder Bay.....	50,000
Lake Shebandawan.....	" ".....	50,000
Little Long Lake.....	" ".....	50,000
Arrow Lake.....	" ".....	50,000
Lake Hellen.....	" ".....	50,000
Windigo Lake.....	" ".....	50,000
Hasel Lake.....	" ".....	50,000
Lake Superior.....	" ".....	2,005,000
Kenogami Lake.....	Timiskaming.....	25,000
Twin Lakes.....	" ".....	25,000
Long Lake.....	" ".....	25,000
McLeod Lake.....	" ".....	25,000
Hill's Lake.....	" ".....	10,000

Pickarel

Lake La Cloche.....	Algoma.....	50,000
Lake Chesley.....	Bruce.....	50,000
Rideau River.....	Carleton.....	200,000
Scugog Lake.....	Durham.....	500,000
Sharbot Lake.....	Frontenac.....	200,000
Loon Lake.....	" ".....	100,000
Lake Mississagagon.....	" ".....	100,000
Sand Lake.....	" ".....	50,000
Devil Lake.....	" ".....	100,000
Cranberry Lake.....	" ".....	100,000
Long Lake.....	" ".....	100,000
Lake St. Frances.....	Glengarry.....	200,000
Pearl Lake.....	Grey.....	50,000
Konkell Lake.....	Haliburton.....	100,000
Stoco Lake.....	Hastings.....	20,000
Crow Lake.....	" ".....	200,000
Moirs River.....	" ".....	200,000
Gunter Lake.....	" ".....	100,000
Wadsworth Lake.....	" ".....	100,000
Deer Lake.....	" ".....	150,000
Trent River.....	" ".....	400,000
Maitland River.....	Huron.....	100,000
Dalhousie Lake.....	Lanark.....	100,000
Mississippi Lake.....	" ".....	100,000
Christie Lake.....	" ".....	100,000
Patterson Lake.....	" ".....	100,000
Bennett's Lake.....	" ".....	150,000
Rideau River.....	" ".....	100,000
Rideau Lakes.....	" ".....	150,000
Rideau Lakes.....	Leeds.....	100,000
Charleston Lake.....	" ".....	250,000
Killenback Lake.....	" ".....	100,000
Higley Lake.....	" ".....	100,000
Lake Elvida.....	" ".....	100,000
Bass Lake.....	" ".....	100,000
Green's Lake.....	" ".....	100,000
Lyndhurst Lake.....	" ".....	50,000
Atkinson's Lake.....	" ".....	50,000
Jerome's Lake.....	" ".....	50,000
Beaver Lake.....	Lennox and Addington.....	100,000
Thames River.....	Middlesex.....	250,000
Pond Mills.....	" ".....	100,000
Aux Saubles River.....	" ".....	200,000
Beasley Lake.....	Muskoka.....	50,000
North Lake.....	" ".....	50,000
Sparrow Lake.....	" ".....	250,000
Gull Lake.....	" ".....	50,000

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1923—*Continued**Pickarel.*

Waters	County or District	Quantity
Long Lake.....	Muskoka.....	300,000
Musquash River.....	".....	50,000
Leech Lake.....	".....	100,000
Deer Lake.....	".....	50,000
Henshaw Lake.....	".....	100,000
Hartt's Lake.....	".....	100,000
Cache Lake, Algonquin Park.....	Nipissing.....	150,000
Lake Nobsinsing.....	".....	50,000
Trent River.....	Northumberland.....	100,000
Mud Lake.....	Ontario.....	50,000
Poole Lake.....	Parry Sound.....	50,000
Harris Lake.....	" ".....	50,000
Ahmic Lake.....	" ".....	50,000
Wolf Lake.....	" ".....	50,000
Cecebe Lake.....	" ".....	50,000
Ruthe Lake.....	" ".....	50,000
Manitawaba Lake.....	" ".....	50,000
Kashegagamog Lake.....	" ".....	50,000
Rice Lake.....	Peterborough.....	200,000
Stoney Lake.....	".....	1,100,000
Clear Lake.....	".....	100,000
Jack's Lake.....	".....	100,000
Little Canoe River.....	Rainy River.....	3,250,000
Rainy Lake.....	" ".....	20,320,000
Muck's Lake.....	Renfrew.....	50,000
Ottawa River.....	".....	50,000
Pike Lake.....	".....	50,000
Lake Dore.....	".....	50,000
Mink Lake.....	".....	50,000
Muskrat Lake.....	".....	50,000
Golden Lake.....	".....	100,000
Silver Lake.....	".....	100,000
Petawawa River.....	".....	50,000
Lake Couchiching.....	Simcoe.....	100,000
Severn River.....	".....	300,000
Cook's Lake.....	".....	50,000
Loon Lake.....	Sudbury.....	100,000
Apsey Lake.....	".....	200,000
Kashabowie Lake.....	Thunder Bay.....	750,000
Sturgeon Lake.....	Victoria.....	750,000
Balsam Lake.....	".....	100,000
Grand River.....	Waterloo.....	200,000
Hamilton Bay.....	Wentworth.....	500,000

Whitefish

Waters	County or District	Quantity
Lake Superior.....	Algoma.....	32,900,000
North Channel.....	".....	41,000,000
Lake Ontario.....	Durham.....	2,000,000
Lake Ontario.....	Halton.....	6,000,000
Eagle Lake.....	Kenora.....	500,000
Wabigoon Lake.....	".....	2,500,000
Lake Ontario.....	Lincoln.....	2,000,000
Lake Erie.....	Norfolk.....	87,500,000
Lake Ontario.....	Northumberland.....	2,000,000
Lake Ontario.....	Ontario.....	2,000,000
Lake Ontario.....	Peel.....	2,000,000
Rainy Lake.....	Rainy River.....	25,725,000
Mink Lake.....	" ".....	500,000
Little Turtle Lake.....	" ".....	1,200,000
Elbow Lake.....	" ".....	1,000,000
Baril Lake.....	" ".....	500,000
Arrow Lake.....	Thunder Bay.....	1,000,000
Hasel Lake.....	" ".....	100,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1923—*Continued*

Whitefish

Waters	County or District	Quantity
Kashabowie Lake.....	Thunder Bay.....	1,000,000
Shebandowan Lake.....	" ".....	1,000,000
Lake Superior.....	" ".....	37,475,000
Lake Hellen.....	" ".....	1,000,000
Lake Nipigon.....	" ".....	10,000,000
Little Long Lake.....	" ".....	500,000
Long Lake.....	" ".....	1,000,000
Lake Ontario.....	Wentworth.....	2,000,000

Herring

Waters	County or District	Quantity
Lake Ontario.....	Durham.....	2,000,000
Lake Ontario.....	Halton.....	4,000,000
Lake Erie.....	Norfolk.....	16,000,000
Lake Ontario.....	Wentworth.....	2,000,000

Rainbow Trout

Waters	County or District	Quantity
Kaministiquia River.....	Thunder Bay.....	1,100

SUMMARY

Black Bass Fry and Fingerlings.....	785,000
Parent Black Bass.....	997
Speckled Trout Fry and Fingerlings.....	2,328,800
Salmon Trout Fry and Fingerlings.....	12,410,100
Pickrel.....	36,140,000
Whitefish.....	264,400,000
Herring.....	24,000,000
Rainbow Trout.....	1,100
Total distribution.....	340,065,997

COMPARATIVE STATEMENT OF DISTRIBUTION

	1921	1922	1923
Small-mouthed Black Bass Fry and Fingerlings.....	773,500	613,500	785,000
Parent Small-mouthed Black Bass.....	742	937	997
Speckled Trout Fry and Fingerlings.....	1,147,500	2,184,075	2,328,800
Salmon Trout Fry and Fingerlings.....	110,400	7,815,000	12,410,100
Pickrel.....	27,625,000	43,510,000	36,140,000
Whitefish.....	115,950,000	189,775,000	264,400,000
Herring.....	9,740,000	26,250,000	24,000,000
Rainbow Trout.....		21,000	1,100
Steel Head Salmon.....		5,300	
	155,347,142	270,174,812	340,065,997

ONTARIO

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats, fishing industry during

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton- nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
			\$			\$			\$			\$
1 Kenora and Rainy River District.....	5	100	11,230	13	110	49,185	153	67	2,526	47	253,619	35,234
2 Lake Superior and District.....	20	472	81,300	115	44	23,350	77	70	6,475	101	878,810	79,418
3 North Channel (Lake Huron).....	6	110	23,000	26	29	18,850	55	49	3,685	49	246,380	19,282
4 Georgian Bay (Lake Huron).....	22	575	132,400	106	96	83,770	197	80	5,727	124	1,190,227	118,257
5 Lake Huron (Proper).....	11	313	66,212	56	67	47,416	125	43	2,592	82	782,000	91,460
6 Lake St. Clair.....	2	12	1,580	4	55	21,905	77	87	4,955	85		
7 Lake Erie.....	34	898	231,000	217	136	104,950	369	201	17,195	197	1,164,416	171,009
8 Lake Ontario.....					312	123,350	572	328	17,229	500	1,467,364	141,586
9 Inland Waters.....					45	20,850	80	155	4,679	315	35,985	6,088
Totals.....	100	2,480	546,722	537	894	493,626	1,705	1,080	65,063	1,500	6,018,801	662,334

Recapitulation of the kinds, quantities and values

Districts	Herring, salted	Herring, fresh	Whitefish, salted	Whitefish fresh	Trout, salted	Trout, fresh	Pike	Pickrel, or Dore
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Kenora and Rainy River District.....				603,612		73,044	455,191	1,151,748
2 Lake Superior and district.....	18,000	1,078,958	1,000	1,267,377	2,340	1,956,211	22,809	158,705
3 North Channel (Lake Huron).....	385	10,382	28	175,487	1,665	357,970	77,656	143,626
4 Georgian Bay (Lake Huron).....	1,140	71,314	825	1,213,681	9,935	1,344,676	105,897	120,318
5 Lake Huron (Proper).....	4,000	147,583	1,000	127,909	9,848	1,694,660	13,505	219,133
6 Lake St. Clair.....				2,140			22,941	72,431
7 Lake Erie.....		9,241,118		536,123		239	129,585	602,564
8 Lake Ontario.....	6,427	249,635	2,350	2,563,764	6,169	748,781	280,800	167,985
9 Inland Waters.....		7,370	940	25,872		34,814	87,846	54,685
Totals.....	29,952	10,806,360	6,143	6,515,965	29,957	6,210,395	1,196,230	2,691,195
Values.....	\$ c. 1,797 12	\$ c. 432,254 40	\$ c. 737 16	\$ c. 781,915 80	\$ c. 3,295 27	\$ c. 683,143 45	\$ c. 59,811 50	\$ c. 376,767 30

FISHERIES.

the quantity and value of all fishing materials and other fixtures employed in the the year 1923.

Fishing material												Other fixtures used in fishing.				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
.....			56	11,761	30	871	.....		.....	.....	.....	.....	93	25,793	65	7,225
.....			52	20,545	5	30	.....		2,500	225	.....	.....	21	10,600	24	9,954
.....			90	39,000	25	2,060	.....		.....	.....	.....	.....	31	8,815	26	11,800
12	935	478	82	69,800	34	718	.....		30,241	3,851	1	1	36	18,900	31	14,950
8	535	422	108	67,050	2	150	.....		3,035	342	.....	.....	32	10,200	24	7,300
34	7,050	4,893	216	25,635	2	40	.....		4,100	127	.....	.....	40	13,650	13	8,475
47	12,025	8,229	658	410,150	76	2,219	18	168	6,910	207	.....	.....	103	130,435	57	25,523
21	1,566	1,444	.....	.....	772	24,923	5	254	15,750	677	.....	.....	66	12,235	31	4,820
50	3,648	5,350	3	650	317	10,054	13	53	8,800	384	124	867	34	4,485	8	835
172	25,759	20,816	1,265	644,591	1,263	41,065	36	475	71,336	5,813	125	868	456	235,113	279	90,882

of fish caught during the year 1923.

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed and coarse fish	Caviare	Sturgeon Bladders	Pickarel (Blue)	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	No.	lbs.	\$ c.
14,023	.....	4,684	111,692	.....	13,814	131,267	543	.....	3,835	281,744 38
27,238	.....	.....	600	.....	4,732	49,665	10	.....	.....	446,453 74
8,322	2	20,810	.....	50	122	394,478	25	.....	.....	104,664 97
5,371	.....	3,615	81,568	7,300	52,303	51,548	345	.....	.....	331,056 88
11,766	195	118,022	121,004	399	6,474	101,494	927	.....	3,550	262,291 48
22,543	.....	56,773	.....	43,228	304,871	351,786	700	.....	3,325	52,367 27
40,888	510	2,396,778	.....	57,765	286,319	1,286,587	1,837	.....	3,193,677	855,883 19
2,948	123,940	82,703	217	180,761	102,989	377,544	56	.....	49,868	492,857 65
10,766	19,998	17,537	.....	107,605	361,697	269,950	26	.....	500	59,079 20
143,865	144,645	2,700,922	315,081	397,108	1,133,321	3,014,319	4,469	.....	3,254,755	.....
\$ 47,475 45	\$ 17,357 40	\$ 135,046 10	\$ 15,754 05	\$ 27,797 56	\$ 45,332 84	\$ 120,572 76	\$ 7,150 40	\$	\$ 130,190 20	\$ 2,886,398 76

Comparative Statement of the Yield of the Fisheries of the Province of Ontario
according to Districts.

	1922 lbs.	1923 lbs.	Increase lbs.	Decrease lbs.
Kenora and Rainy River Districts:				
Whitefish, fresh.....	590,249	603,612	13,363	
Trout, fresh.....	87,783	73,044		14,739
Pike.....	488,360	455,191		33,169
Pickereel (Dore).....	1,041,601	1,151,748	110,147	
Sturgeon.....	4,169	14,023	9,854	
Perch.....	15,220	4,684		10,536
Tullibee.....	130,774	111,692		19,082
Carp.....	2,640	13,814	11,174	
Mixed and Coarse.....	148,514	131,267		17,247
Caviare.....	136	543	407	
Pickereel (Blue).....	3,600	3,835	235	
Total.....	2,513,046	2,563,453	50,407	(net increase)
Lake Superior:				
Herring, salted.....	27,500	18,000		9,500
Herring, fresh.....	577,065	1,078,958	501,893	
Whitefish, salted.....	840	1,000	160	
Whitefish, fresh.....	1,198,100	1,267,377	69,277	
Trout, salted.....	11,723	2,340		9,383
Trout, fresh.....	1,872,321	1,956,211	83,890	
Pike.....	30,298	22,809		7,489
Pickereel (Dore).....	164,192	158,705		5,487
Sturgeon.....	23,065	27,238	4,173	
Perch.....	162			162
Tullibee.....	78	600	522	
Carp.....	7,187	4,732		2,455
Mixed and Coarse.....	113,372	49,665		63,707
Caviare.....	86	10		76
Pickereel (Blue).....	250			250
Total.....	4,026,239	4,587,645	561,406	(net increase)
Lake Huron (North Channel):				
Herring, salted.....	1,000	385		615
Herring, fresh.....	18,191	10,382		7,809
Whitefish, salted.....	1,150	28		1,122
Whitefish, fresh.....	253,128	175,487		77,641
Trout, salted.....	5,638	1,665		3,973
Trout, fresh.....	647,954	357,970		289,984
Pike.....	104,158	77,656		26,502
Pickereel (Dore).....	164,312	143,626		20,686
Sturgeon.....	12,803	8,322		4,481
Eels.....		2	2	
Perch.....	19,210	20,810	1,600	
Catfish.....	88	50		38
Carp.....	16,359	122		16,237
Mixed and Coarse.....	400,645	394,478		6,167
Caviare.....	64	25		39
Total.....	1,644,700	1,191,008	(net decrease)	453,692

Comparative Statement of the Yield of the Fisheries of the Province of Ontario
according to Districts.—*Continued*

	1922 lbs.	1923 lbs.	Increase lbs.	Decrease lbs.
Georgian Bay:				
Herring, salted.....	1,300	1,140		160
Herring, fresh.....	73,846	71,314		2,532
Whitefish, salted.....	508	825	317	
Whitefish, fresh.....	1,068,604	1,213,681	145,077	
Trout, salted.....	10,250	9,935		315
Trout, fresh.....	1,434,831	1,344,676		90,155
Pike.....	107,662	105,897		1,765
Pickrel (Dore).....	121,592	120,318		1,274
Sturgeon.....	3,499	5,371	1,872	
Perch.....	2,147	3,615	1,468	
Tullibee.....	75,027	81,568	6,541	
Catfish.....	5,361	7,300	1,939	
Carp.....	50,442	52,303	1,861	
Mixed and Coarse.....	87,755	51,548		36,207
Caviare.....	334	345	11	
Total.....	3,043,158	3,069,836	26,678	(net increase)
Lake Huron (Proper):				
Herring, salted.....	3,300	4,000	700	
Herring, fresh.....	177,171	147,583		29,588
Whitefish, salted.....	900	1,000	100	
Whitefish, fresh.....	67,211	127,909	60,698	
Trout, salted.....	20,804	9,848		10,956
Trout, fresh.....	1,686,451	1,694,660	8,209	
Pike.....	5,084	13,505	8,421	
Pickrel (Dore).....	160,299	219,133	58,834	
Sturgeon.....	10,451	11,766	1,315	
Eels.....		195	195	
Perch.....	126,327	118,022		8,305
Tullibee.....	131,508	121,004		10,504
Catfish.....	1,255	399		856
Carp.....	3,140	6,474	3,334	
Mixed and Coarse.....	113,664	101,494		12,170
Caviare.....	634	927	293	
Pickrel (Blue).....	10,969	3,550		7,419
Total.....	2,519,168	2,581,469	62,301	(net increase)
Lake St. Clair:				
Whitefish, fresh.....	3,570	2,140		1,430
Pike.....	25,136	22,941		2,195
Pickrel (Dore).....	57,138	72,431	15,293	
Sturgeon.....	8,169	22,543	14,374	
Perch.....	96,185	56,773		39,412
Catfish.....	31,839	43,228	11,389	
Carp.....	313,266	304,871		8,395
Mixed and Coarse.....	461,477	351,786		109,691
Caviare.....	296	700	404	
Pickrel (Blue).....	2,400	3,325	925	
Total.....	999,476	880,738	(net decrease)	118,738

Comparative Statement of the Yield of the Fisheries of the Province of Ontario
according to Districts.—*Continued.*

	1922 lbs.	1923 lbs.	Increase lbs.	Decrease lbs.
Lake Erie:				
Herring, fresh.....	6,306,318	9,241,118	2,934,800	
Whitefish, salted.....	454			454
Whitefish, fresh.....	751,270	536,123		215,147
Trout, fresh.....	526	239		287
Pike.....	143,736	129,585		14,151
Pickeral.....	505,070	602,564	97,494	
Sturgeon.....	36,359	40,888	4,529	
Eels.....	7	510	503	
Perch.....	2,109,027	2,396,778	287,751	
Catfish.....	58,321	57,765		556
Carp.....	233,926	286,319	52,393	
Mixed and Coarse.....	1,227,170	1,286,587	59,417	
Caviare.....	1,467	1,837	370	
Pickeral (Blue).....	6,312,589	3,193,677		3,118,912
Total.....	17,686,240	17,773,990	87,750	(net increase)
Lake Ontario:				
Herring, salted.....	3,222	6,427	3,205	
Herring, fresh.....	342,608	249,635		92,973
Whitefish, salted.....	1,796	2,350	554	
Whitefish, fresh.....	2,096,619	2,563,764	467,145	
Trout, salted.....	955	6,169	5,214	
Trout, fresh.....	720,894	748,781	27,887	
Pike.....	250,225	280,800	30,575	
Pickeral (Dore).....	116,230	167,985	51,755	
Sturgeon.....	1,660	2,948	1,288	
Eels.....	146,846	123,940		22,906
Perch.....	74,032	82,703	8,671	
Tullibee.....		217	217	
Catfish.....	177,776	180,761	2,985	
Carp.....	121,004	102,989		18,015
Mixed and Coarse.....	448,628	377,544		71,084
Caviare.....		56	56	
Pickeral (Blue).....	28,706	49,868	21,162	
Total.....	4,531,201	4,946,937	415,736	(net increase)
Inland Waters:				
Herring, fresh.....	12,008	7,370		4,638
Whitefish, salted.....	700	940	240	
Whitefish, fresh.....	44,636	25,872		18,764
Trout, fresh.....	43,165	34,814		8,351
Pike.....	105,170	87,846		17,324
Pickeral (Dore).....	54,563	54,685	122	
Sturgeon.....	11,776	10,766		1,010
Eels.....	24,192	19,998		4,194
Perch.....	25,004	17,537		7,467
Catfish.....	108,639	107,605		1,034
Carp.....	312,500	361,697	49,197	
Mixed and Coarse.....	316,430	269,950		46,480
Caviare.....	6	26	20	
Pickeral (Blue).....		500	500	
Total.....	1,058,789	999,606	(net decrease)	59,183

Comparative Statement of the Yield of the Fisheries of the Province of Ontario.

	1922 lbs.	1923 lbs.	Increase lbs.	Decrease lbs.
Herring, salted.....	36,322	29,952		6,370
Herring, fresh.....	7,507,207	10,806,360	3,299,153	
Whitefish, salted.....	6,348	6,143		205
Whitefish, fresh.....	6,073,387	6,515,965	442,578	
Trout, salted.....	49,370	29,957		19,413
Trout, fresh.....	6,493,925	6,210,395		283,530
Pike.....	1,259,829	1,196,230		63,599
Pickarel (Dore).....	2,384,997	2,691,195	306,198	
Sturgeon.....	111,951	143,865	31,914	
Eels.....	171,045	144,645		26,400
Perch.....	2,467,314	2,700,922	233,608	
Tullibee.....	337,387	315,081		22,306
Catfish.....	383,279	397,108	13,829	
Carp.....	1,060,464	1,133,321	72,857	
Mixed and Coarse.....	3,317,655	3,014,319		303,336
Caviare.....	3,023	4,469	1,446	
Pickarel (Blue).....	6,358,514	3,254,755		3,103,759
Total.....	38,022,017	38,594,682	572,665	(net increase)

Statement of the Yield of the Fisheries of the Province of Ontario for the Year 1923,
as furnished by the Fishermen's Annual Returns.

Kind of Fish.	Quantity lbs.	Price per lb.	Value
		\$ c.	\$ c.
Herring, salted.....	29,952	06	1,797 12
Herring, fresh.....	10,806,360	04	432,254 40
Whitefish, salted.....	6,143	12	737 16
Whitefish, fresh.....	6,515,965	12	781,915 80
Trout, salted.....	29,957	11	3,295 27
Trout, fresh.....	6,210,395	11	683,143 45
Pike.....	1,196,230	05	59,811 50
Pickarel (Dore).....	2,691,195	14	376,767 30
Sturgeon.....	143,865	33	47,475 45
Eels.....	144,645	12	17,357 40
Perch.....	2,700,922	05	135,046 10
Tullibee.....	315,081	05	15,754 05
Catfish.....	397,108	07	27,797 56
Carp.....	1,133,321	04	45,332 84
Mixed and Coarse.....	3,014,319	04	120,572 76
Caviare.....	4,469	1 60	7,150 40
Pickarel (Blue).....	3,254,755	04	130,190 20
Total.....	38,594,682		2,886,398 76

VALUE OF ONTARIO FISHERIES FOR A PERIOD OF TWENTY YEARS, 1904 TO 1923 INCLUSIVE.

Year	Value		Year	Value	
	\$	c.		\$	c.
1904	1,793,524	00	1914	2,755,293	11
1905	1,708,963	00	1915	3,341,181	41
1906	1,734,865	00	1916	2,658,993	43
1907	1,935,024	90	1917	2,866,424	00
1908	2,100,078	63	1918	3,175,110	32
1909	2,237,544	41	1919	2,721,440	24
1910	2,348,269	57	1920	2,691,093	74
1911	2,419,178	21	1921	2,656,775	82
1912	2,842,877	09	1922	2,807,525	21
1913	2,674,686	76	1923	2,886,398	76

STATEMENT OF THE EQUIPMENT AND ITS VALUE USED IN THE FISHING INDUSTRY OF THE PROVINCE OF ONTARIO, DURING THE YEAR 1923.

	Number	Value
		\$ c.
Tugs (2,480 tons).....	100	546,722 00
Gasoline Launches.....	894	493,626 00
Sail or Row Boats.....	1,080	65,063 00
Gill Nets (6,018,801 yards).....	.....	662,334 00
Seine Nets (25,759 yards).....	172	20,816 00
Pound Nets.....	1,265	644,591 00
Hoop Nets.....	1,263	41,065 00
Dip or Roll Nets.....	36	475 00
Baited Hooks.....	71,336	5,813 00
Spears.....	125	868 00
Freezers and Ice Houses.....	456	235,113 00
Piers and Wharves.....	279	90,882 00
		2,807,368 00

Number of men employed on Tugs.....	537
Number of men employed on Gasoline Launches.....	1,705
Number of men employed on Sail or Row Boats.....	1,500
	3,742

June 18, 1931

Eighteenth Annual Report

OF THE

GAME AND FISHERIES DEPARTMENT

1924

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO

Printed and Published by Clarkson W. James, Printer to the King's Most Excellent Majesty
1925

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GAME AND FISHERIES DEPARTMENT

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TORONTO

Printed and Published by Clarkson W. James, Printer to the King's Most Excellent Majesty
1925

To His Honour HENRY COCKSHUTT, Esq.,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Eighteenth Annual Report of the Game and Fisheries Department of this Province.

I have the honour to be

Your Honour's most obedient servant,

CHARLES MCCREA,

Minister of Mines.

Toronto, 1925.



EIGHTEENTH ANNUAL REPORT

OF THE

Game and Fisheries Department of Ontario

TO THE HONOURABLE CHARLES MCCREA,
Minister of Mines.

SIR:—I have the honour to place before you the Eighteenth Annual Report of the work of the Game and Fisheries Department for the fiscal year ending the 31st day of October, 1924. A gross revenue of \$667,227.96 was received, while the expenditures totalled \$336,826.96, so that a surplus of \$330,401 was obtained.

COMPARATIVE STATEMENT OF REVENUE AND EXPENDITURE, 1916-1924 INC., AS SHOWN IN THE PUBLIC ACCOUNT.

	Revenue	Expenditure	Surplus
1916.....	\$174,186 71	\$157,681 94	\$16,504 77
1917.....	219,442 94	154,055 17	65,387 77
1918.....	258,671 62	167,795 22	90,876 40
1919.....	346,197 14	185,247 72	160,949 42
1920.....	466,550 86	239,978 13	226,572 73
1921.....	612,972 86	287,608 87	325,363 99
1922.....	737,519 65	347,352 00	390,167 65
1923.....	621,148 08	391,422 19	229,725 89
1924.....	667,227 96	336,826 96	330,401 00

It will be noted that the revenue was increased over the previous year by \$46,079.88, while the expenditure was decreased by \$54,595.23, thereby increasing the surplus of the previous year by \$100,675.11.

For comparative purposes, I beg to show separately the revenue received from Game and Fish for the past two years.

	1923	1924	
Revenue from game.....	\$383,477 09	\$372,142 54	\$11,334 55—Dec.
Revenue from fish.....	237,670 99	295,085 42	57,414 43—Inc.

It will be noted from the detailed revenue statement published elsewhere in this report that while there has been an increase in the revenue from commercial fishing, yet a decided increase in revenue has been received from the sale of angling licenses, as the receipts from this source now show the sum of \$105,862.50.

STATISTICS

The statistics accompanying this report will show in detail the kinds, quantities and values of commercial fish taken, also the varieties, quantities and locations of fry and fingerlings distributed from Provincial Hatcheries, together with other statistics pertaining to the fur trade, as well as other branches of the Department. All of which has been carefully prepared and affords interesting and valuable information.

FISH

The statistics of the commercial fisheries of the Province are shown in comparison as follows:—

	1922	1923	1924
Gill nets licensed (yards).....	6,239,582	6,018,801	6,502,736
Seines ".....	186	172	208
Pound nets ".....	1,285	1,265	1,323
Hoop ".....	1,282	1,263	1,256
Dip and roll nets licensed.....	59	36	70
Spears ".....	151	125	126
Hooks ".....	85,865	71,336	78,685
Number of men employed.....	4,003	3,742	4,267
Number of tugs.....	101	100	103
Number of gasoline boats.....	946	894	975
Number of sail or row boats.....	1,181	1,080	1,177
Value of boats, ice-houses, wharves, and twine.....	\$3,352,410 00	\$2,807,368 00	\$2,995,362 00
Aggregate catch in pounds.....	38,022,017	38,594,682	41,732,664
Value to fishermen.....	\$2,807,525 21	\$2,886,398 76	\$3,139,279 03

ANGLING

While the fee for non-resident angling licenses remains the same, the revenue has shown a decided increase over any former year, as will be shown by the following comparisons:—

	1922	1923	1924
Revenue from Angling Licenses.....	\$63,132 00	\$77,856 75	\$105,862 50

Although game fishing is reported as good in various parts of the Province, it can be readily seen that the yearly toll is fast increasing and places a demand on the hatcheries that will require the maximum production to maintain a supply that will satisfy the steadily increasing resident and non-resident anglers.

HATCHERIES

Elsewhere in this report will be found in detail the quantities and varieties of fry and fingerlings placed in various waters of the Province from hatcheries located at Mount Pleasant, Glenora, Sault Ste. Marie, Normandale, Port Carling, Port Arthur and Fort Frances, and for comparative purposes with the previous year, the following figures show a summary of total distributions:—

	1923	1924
Whitefish Fry.....	264,400,000	437,469,000
Pickrel Fry.....	36,140,000	80,250,000
Salmon Trout Fingerlings and Fry.....	12,410,100	7,801,000
Herring Fry.....	24,000,000	32,475,000
Rainbow Trout Fry.....	1,100	15,000
Speckled Trout Fingerlings and Fry.....	2,328,800	1,898,500
Black Bass Fingerlings and Fry.....	785,000	338,000
Parent Black Bass.....	997	1,111
	<hr/> 340,065,997	<hr/> 560,247,611

The demand from the public for a supply of fry and fingerlings is very great, and the demand for game fish is much greater than the supply, although every effort is being made to improve conditions, and I would draw your attention to the rapid growth of work done by the Provincial Hatcheries. In the year 1912, only 150,000 fry were distributed, and in 1918, 58,356,631 fry were planted, while during 1924, 560,247,611 fry were placed in public waters.

GAME SANCTUARIES

The propagation of English Ring-necked Pheasants is still being carried on at the Eugenia Crown Game Preserve with considerable success, and the public interest is increasing in this undertaking. Aside from the hundreds of pheasants reared on the preserve over 17,000 eggs were placed with farmers and sportsmen for hatching purposes during the year, and from reports received these game birds can be successfully bred in all parts of the Province, including the most westerly districts of Kenora, Rainy River and Thunder Bay.

In order to meet a demand for further game sanctuaries of considerable size, there has been created the Superior Game Sanctuary which includes islands and mainland between Port Arthur and Schreiber along the north shore of Lake Superior. This territory possesses considerable large game and fur-bearing animals and with proper control and destruction of vermin, should prove of value to that district. I am of the opinion that another large sanctuary should be established in the middle of the north-west part of the Province in view of the decrease in certain fur-bearing animals and owing to the ever increasing number of sportsmen hunting big game.

PLANTING OF WILD RICE

The practice of planting wild rice seed in public waters in all parts of the Province has been continued with success and the demand is much greater than the supply obtainable.

GAME

Deer.—No means are available to show the exact number of deer taken during the year, but from reports received deer were taken in the usual numbers.

Moose are reported as plentiful in a number of areas. The following is a comparison of big game hunting licenses issued for the past four years:—

	1921	1922	1923	1924
Resident Moose.....	1,989	1,584	1,098	1,385
Resident Deer.....	18,689	20,504	17,877	19,517
Non-resident Hunting.....	950	1,256	1,247	1,651

Ruffed Grouse (commonly known as partridge). In 1923 these game birds were plentiful in all suitable localities, and so far as it has been possible to ascertain the birds wintered well during the winter of 1923 and 1924, but for some unaccountable reason during the summer of 1924 the decrease in numbers of these birds was so enormous that a close season was advocated by a number of sportsmen. Many reasons for this scarcity were advanced, but the true cause will probably remain a mystery. A short open season was permitted, and with normal conditions following, these birds should become well established again.

Sharp-tailed Grouse or Prairie Hen are plentiful in the western part of the Province, and appear to be working eastward as the district of Thunder Bay is reported to have a large number.

Quail are still protected by a close season, and are to be found in larger numbers in the Counties of Kent and Essex than elsewhere.

Pheasants are protected by a close season, and are to be found in almost every county owing to the distribution of eggs by the Department from the Eugenia Crown Game Preserve. In the Counties of Lincoln and Welland these birds were so plentiful as to make it possible to provide for a one-day shoot for a limited number of male birds. This arrangement was well received by the sportsmen of the Province, and excellent shooting was enjoyed.

Ducks and Geese are plentiful in all parts of the Province, and the season was a satisfactory one to all sportsmen.

FURS

The total catch of fur-bearing animals shows an increase over the preceding year both in numbers and in value to the trapper, but the decrease in beaver taken for two successive years gives cause for some action to be taken to further preserve these animals.

Beaver.—The figures published below show the rapid decline that has taken place in the two years just past.

Otter.—Not shown to have decreased for some years.

Mink were taken in larger numbers than for some years.

Marten and Fisher are quite scarce.

Muskrat have been steady in production for some years.

COMPARISON OF PELTS EXPORTED AND TANNED DURING 1921-2-3-4

	1921	1922	1923	1924
Beaver.....	95,479	93,971	70,684	50,233
Otter.....	4,759	5,309	3,997	5,096
Fisher.....	2,602	2,657	2,339	1,910
Marten.....	6,533	7,327	4,704	3,661
Mink.....	42,667	78,487	58,634	82,446
Muskrat.....	479,866	554,888	478,820	533,256
Bear.....	1,494	2,137	1,447	1,399
Fox (Cross).....	287	469	1,154	1,082
Fox (Red).....	5,282	11,272	12,329	14,695
Fox (Silver or Black).....	153	87	205	167
Fox (White).....	351	1,765	1,501	362
Fox (not specified).....	23	170	34	28
Lynx.....	591	836	1,177	2,332
Raccoon.....	11,951	20,344	15,752	21,976
Skunk.....	47,121	73,219	54,770	58,130
Weasel.....	58,898	94,399	61,603	51,163
Wolverine.....	12	6	20	12
Total.....	762,069	947,343	769,070	827,948

In addition to the above list there were during the year 1924, 628 ranch-raised foxes that were either exported alive or the pelts exported or tanned.

The value of pelts taken during the year amounted to \$3,234,946.62 to the trapper. The value of pelts produced in the entire Dominion in 1924 was \$15,643,817, and Ontario's value of fur-bearing animals was higher than any other Province and exceeded the "second place" Province by over a million dollars.

FUR FARMING

There still continues to be a steady increase in the issue of fur farmers' licenses, and the public are demanding information and statistics concerning this branch of the fur industry.

Fur farmers' licenses issued.....	1922 141	1923 284	1924 392
Animals stocked on licensed farms:—			
Beaver.....	1922 4	1923 2	1924 10
Fisher.....	3	6	6
Fox (Cross).....	270	361	386
Fox (Red).....	206	323	347
Fox (Silver Black).....	1,088	2,171	3,006
Lynx.....	2	2	2
Mink.....	94	73	97
Muskrat.....	...	163	2,904
Opossum.....	6	...	...
Raccoon.....	50	130	149
Skunk.....	82	46	138
Bear.....	...	...	11
	1,805	3,277	7,056

ENFORCEMENT OF THE ACT

The district wardens, special patrol officers and overseers in all parts of the Province have rendered efficient service in enforcing the provisions of the Act and Regulations.

During the year two gasoline boats were purchased to patrol areas on the Great Lakes and connecting waters, and these additions filled a demand for a better water patrol service.

SUMMARY OF CONVICTIONS, FINES AND CONFISCATIONS FOR THE YEAR

Convictions.....	933
Fines collected.....	\$14,754 10
Sale of confiscations.....	11,715 45

A great many articles were confiscated during the year, including:—

5,056 Pelts	13 Trap nets	1 Horse and waggon
15,880 pounds fish	42 Spears	2 Motor trucks
20,081 yards gill net	62 Rods and lines	2 Motor cars
837 pieces gill net	502 Traps	14 Deer
39 Dip nets	232 Fire-arms	54 pounds venison
15 Hoop nets	10 Gasoline boats	5 Moose
8 Seine nets	2 Scows	69 Partridge
2 Roll nets	21 Row-boats	69 Ducks
5 Pound nets	3 Canoes	67 Decoys

All confiscations are sold at advertised sales by tender, other than such articles as are sold by the Department to the former owner, when circumstances warrant.

ACKNOWLEDGMENTS

The Department desires to thank the transportation companies who have rendered every assistance in the distribution of fry in the various waters of the Province. Appreciation is also expressed for the co-operation of officials of the federal, provincial and state governments with whom conferences have been held. The success of the year's operations has been due to the loyalty and work of all members of the staff, both on the inside service and those engaged in the field and hatchery work.

All statistics referred to will be found elsewhere in this report, together with many other statistics in detail.

All of which is respectfully submitted.

I am, Sir,

Your obedient servant,

D. McDONALD,

Deputy Minister of Game and Fisheries.

**REVENUE RECEIVED BY DEPARTMENT OF GAME AND FISHERIES
DURING YEAR ENDING OCTOBER 31st, 1924**

GAME

Royalty.....	\$140,704 89
Commissions.....	813 00
Trappers' Licenses.....	47,676 41
Non-resident Hunting Licenses.....	43,425 00
Deer Licenses.....	58,680 00
Moose Licenses.....	6,903 50
Fur Dealers' Licenses.....	48,639 00
Fur Farmers' Permits.....	2,045 00
Tanners' Licenses.....	190 00
Game Dealers' Licenses.....	532 00
Hotel and Restaurant Licenses, etc.....	259 00
Cold Storage Licenses.....	240 00
Guides' Licenses.....	2,868 00
Fines.....	12,772 30
Sales.....	6,394 44

\$372,142 54

FISHERIES

Fishing Licenses.....	\$123,893 50
Royalty.....	45,663 64
Angling Permits.....	105,862 50
Fines.....	1,981 80
Sales.....	5,321 01
Miscellaneous.....	12,362 97

\$295,085 42

\$667,227 96

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1924

<i>Small-mouthed Black Bass Fry and Fingerlings</i>		<i>Haliburton:</i>		Quantity
Addington:	Quantity	Gull Lake.....		2,500
Cedar Lake.....	5,000	Mountain Lake.....		5,000
Beaver Lake.....	5,000	Devil's Lake.....		2,500
Algoma:		Days Lake.....		2,000
Hunter Lake.....	10,000	Grace Lake.....		5,000
Bruce:		Dacks Lake.....		2,000
Lake Isaac.....	2,500	Percy Lake.....		2,000
Berford Lake.....	2,500	Deer Lake.....		1,000
Lake Chesley.....	2,500	Rock Lake.....		2,000
Gould Lake.....	2,500	North Lake.....		2,000
Carleton:		Little Gull Lake.....		2,500
Rideau River.....	2,500	Blue Lake.....		1,000
Durham:		Boskung Lake.....		5,000
Rice Lake.....	5,000	Hastings:		
Frontenac:		Stoco Lake.....		5,000
Sharbot Lake.....	5,000	Moir River.....		2,000
Cross Lake.....	2,500	Marmora Lake.....		5,000
White Lake.....	5,000	Lanark:		
Bob's Lake.....	7,500	Dalhousie Lake.....		7,500
Red Pine Lake.....	2,500	Mississippi Lake.....		5,000
Big Clear Lake.....	5,000	Black Lake.....		5,000
Rock Lake.....	2,500	Otty Lake.....		5,000
Marble Lake.....	2,500	White Lake.....		5,000
Long Lake.....	5,000	Christie Lake.....		5,000
Grey:		Bass Lake.....		2,500
Sauble River.....	5,000	Mississippi River.....		5,000
Mountain Lake.....	4,000	Robertson's Lake.....		2,500
Haliburton:		Bennett's Lake.....		5,000
Kashamagamog Lake.....	5,000	Middlesex:		
Drag Lake.....	5,000	Thames River.....		2,500
Spruce Lake.....	2,500	Muskoka:		
Bob Lake.....	2,500	Lake Vernon.....		5,000
		Silver Lake.....		2,500
		McCrea's Lake.....		2,500

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1924—*Continued**Small-mouthed Black Bass Fry and Fingerlings*

	Quantity
Muskoka:	
Brook's Lake.....	2,500
Muldrew Lake.....	5,000
Long Lake.....	2,500
Heck's Lake.....	2,500
Crotch Lake.....	2,500
Henshaw Lake.....	2,500
Nipissing:	
Lake Nipissing.....	5,000
Trout Lake.....	2,500
Northumberland:	
Crow Bay.....	2,500
Trent River.....	7,500
Oxford:	
Smiths Pond.....	2,500
Parry Sound:	
Long Lake.....	2,500
Ahmic Lake.....	2,500
Clear Lake.....	2,500
Pickarel Lake.....	2,500
Cecebe Lake.....	2,500
Otter Lake.....	2,500
Dalhousie Lake.....	2,500
Bittern Lake.....	2,500
Peterborough:	
Swamp Lake.....	5,000
Pigeon Lake.....	10,000
Stoney Lake.....	5,000
Chemong Lake.....	5,000
Round Lake.....	2,500
Simcoe:	
Bass Lake.....	2,500
Lake Couchiching.....	5,000
Sudbury:	
Lovering Lake.....	5,000
Ramsay Lake.....	5,000
Apsey Lake.....	5,000
Lees Lake.....	5,000
Chapleau Lake.....	5,000
Victoria:	
Sturgeon Lake.....	10,000
Wellington:	
Little Saugeen River.....	2,500
York:	
Lake Simcoe.....	2,500

Parent Bass

Grey:	
Wilders Lake.....	30
Kenora:	
West Hawk Lake.....	155
Rainy River:	
Six Mile Lake.....	200
Thunder Bay:	
Nipigon Bay.....	500
Blend Lake.....	30
Edmonton, Alberta:	
Ministick Lake.....	196

Speckled Trout Fry and Fingerlings

	Quantity
Algoma:	
Trout Lake.....	5,000
Clear Lake.....	10,000
Moose Lake.....	5,000
Agawa River.....	5,000
Mongoose Lake.....	15,000
Spruce Lake.....	10,000
Loon Lake.....	5,000
Pine Lake.....	11,000
Hobon Lake.....	5,000
Alva Lake.....	5,000
South Chippewa River.....	5,000
Sand Lake and Creek.....	15,000
Speckled Trout Brook.....	5,000
Deer Lake.....	5,000
Carpenter Lake.....	5,000
Martz Lake.....	5,000
Silver Creek.....	10,000
Lily Lake.....	5,000
Gull Lake.....	5,000
Beryl Lake.....	5,000
Gargantua Creek.....	5,000
Heron Lake.....	5,000
Darle Lake.....	5,000
Root River.....	5,000
Lonely Lake.....	5,000
Little Carp Creek.....	5,000
Bruce:	
Rusk Creek.....	2,500
Silver Creek.....	10,000
Black River.....	2,500
Weirs Creek.....	2,500
Willow Creek.....	2,500
Vance Stream.....	2,500
Sang's Creek.....	2,500
Phillip's Creek.....	2,500
Thomson's Creek.....	2,500
Monkman's Creek.....	2,500
Sullivan Creek.....	2,500
Teeswater River.....	5,000
Hammond Creek.....	2,300
Colpoys Creek.....	2,500
Kirkland's Creek.....	2,500
Rourke's Creek.....	2,500
Formosa Creek.....	2,500
Stoney Creek.....	2,500
Durham:	
Tippet's Creek.....	2,500
Caven Creek and Mill Pond..	2,500
Canton Creek.....	2,500
Campbell Stream.....	2,500
Tyrone Creek and tributaries.	5,000
Wilnot's Creek.....	2,500
Decker Hollow.....	2,500
Dick Williams' Creek.....	2,500
Dean's Creek.....	2,500
Colwill's Creek.....	2,500
Britain Creek.....	2,500
Suxon Creek.....	2,500
Beatty's Creek.....	2,500
Wilson's Creek.....	5,000
Smith's Stream.....	3,500
Morton's Stream.....	2,500
Moon's Creek.....	2,500
Cusland's Creek.....	2,500
Pigeon Creek and tributary...	2,500

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1924—*Continued*

Speckled Trout Fry and Fingerlings.

	Quantity		Quantity
Durham:		Haliburton:	
Campbellcroft Stream.....	2,500	Farquar Lake.....	5,000
Steven's Creek tributaries.....	7,500	Redstone River.....	5,000
Bees Creek.....	2,500	Halton:	
Bell Hill Stream.....	2,500	Limehouse Pond.....	5,000
Kendal Creek.....	2,500	Twelve Mile Creek.....	5,000
Knox Creek.....	2,500	Hastings:	
Power Stream.....	3,500	Squire's Creek.....	5,000
Allen's Creek.....	2,500	Rawdon Creek.....	5,000
McKindley's Creek.....	2,500	Egan Creek.....	5,000
Brown's Creek.....	1,000	Maloney Creek.....	5,000
Robinson's Stream.....	2,500	Nobbo Lake.....	5,000
Walter's Creek.....	2,500	Mason Creek.....	5,000
Cann's Creek.....	2,500	Quinlan and Robertson's Pond..	2,500
Hampton Creek and tributaries..	5,000	Mayhew's Creek.....	5,000
Liskard Creek.....	2,500	Lanark:	
Shield's Creek.....	2,500	Paul's Creek.....	5,000
Deacon's Creek.....	1,000	Allan's Brook.....	5,000
English Creek.....	1,000	Middlesex:	
Lifford Creek.....	2,500	Thames River.....	15,000
Millpond near Millbrook.....	2,500	Caradoc Mill Pond.....	2,500
Millbrook Creek.....	5,000	Oxbow Creek.....	2,500
Mash Wood's Creek.....	5,000	Manitoulin:	
Dufferin:		Blue Jay River.....	5,000
Esson's Creek.....	5,000	Muskoka:	
White's Creek.....	5,000	Muskoka River.....	5,000
Silver Creek.....	5,000	Little East River.....	10,000
Elgin:		Norfolk:	
Ichenborg Creek.....	5,000	Patterson's Creek.....	10,000
Frontenac:		Kent Creek.....	10,000
Cole Creek.....	5,000	Venison Creek and tributary...	10,000
Grey:		Little Lake Outlet.....	5,000
Skunk Creek.....	2,500	Big Creek.....	5,000
Saugeen River and tributaries..	20,000	River Lynn.....	5,000
Beaver River.....	10,000	Northumberland:	
Sydenham Creek.....	2,500	Woodland Creek.....	2,500
Sydenham River.....	12,500	Strong's Creek.....	2,500
Pfeffer's Creek.....	5,000	Mutton's Creek.....	2,500
Shallow Lake.....	2,500	Allen's Creek.....	2,500
Spey River.....	2,500	Trout Creek.....	2,500
Spring Bank Creek.....	2,500	Burd's Creek.....	2,500
Indian River.....	2,500	Baltimore Creek.....	2,500
McKean's Creek.....	2,500	Russel Creek.....	2,500
Silver Creek.....	5,000	Bogg's Farm Creek.....	2,500
Wiley's Pond.....	2,500	Half Way Creek.....	2,500
Eugenia Crown Game Preserve..	50,000	Massie Creek.....	2,500
Stream at Bangor.....	2,500	Dartford Creek.....	2,500
Oxenden Creek.....	2,500	Summit Creek.....	2,500
Camp's Creek.....	2,500	Raby Creek.....	2,500
Beatty Saugeen River.....	5,000	Dark Creek.....	2,500
Swanston Creek.....	2,500	Harper's Creek.....	2,500
Mud Lake Creek.....	2,500	Lean Creek.....	2,500
Grenville:		Brophy's Creek.....	5,000
Nation River.....	10,000	Hopkin's Creek.....	2,500
Huron:		Burnley Stream.....	2,500
Clinton Spring Creek.....	2,500	Hayden's Creek.....	2,500
Elliott's Creek.....	5,000	Camborne Creek.....	2,500
Cemetery Creek.....	5,000	Harden's Creek.....	2,500
Sharp's Creek.....	7,500	Philip's Creek.....	5,000
Ben Miller Creek.....	10,000	Sykes' Creek.....	2,500
McIlwain's Creek.....	5,000	Bredin's Creek.....	2,500
Stoltz Creek.....	5,000	Shelter Valley Creek.....	2,500
Wawanosk Creek.....	5,000	Dawson Creek.....	2,500
Aux Sable River.....	5,000	Forestell's Creek.....	2,500
Nine Mile River.....	5,000		

WATERS STOCKED

WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1924—*Continued**Speckled Trout Fry and Fingerlings*

	Quantity		Quantity
Ontario:		Sudbury:	
Brown's Creek.....	5,000	Clear Lake.....	15,000
Black Creek.....	2,500	Hardwood Lake.....	10,000
Oxford:		Apsey Lake.....	5,000
Dower Creek.....	5,000	Massey Creek.....	5,000
Springwater Creek and Pond...	15,000	Trout Creek.....	5,000
Wright's Creek.....	5,000	Howey Creek.....	5,000
South Norwich Creek.....	5,000	Emery Creek.....	5,000
Deer Lick.....	5,000	Bertrand's Creek.....	5,000
Parry Sound:		Rapid River.....	5,000
Magnetawan River.....	5,000	Mountain Creek.....	5,000
Bolger Lake tributary.....	5,000	Post Creek.....	5,000
Sugar Lake Creek.....	5,000	Chelmsford Creek.....	5,000
Trout Stream at Sundridge.....	5,000	Pump Creek.....	5,000
Camp Stream at Sundridge.....	2,500	Wilson Lake.....	5,000
Stoney Lake.....	5,000	Burnt Creek.....	5,000
Sword's Creek.....	5,000	Rock Lake.....	5,000
South River.....	5,000	Anderson Lake.....	10,000
Peel:		Sixty Nine Lake.....	10,000
Credit River.....	20,000	Three Mile Lake.....	10,000
Cold Creek.....	5,000	Windermere Lake.....	10,000
Moffatt Stream.....	5,000	Hill Burn.....	5,000
Lockton Creek.....	5,000	Thunder Bay:	
Columbia Stream.....	5,000	Allen Lake.....	15,000
Marshall's Creek.....	5,000	Trout Lake.....	2,500
Doherty's Creek.....	5,000	Moose Lake.....	10,000
Coffey's Creek.....	7,500	McKenzie River.....	10,000
Humber River.....	5,000	Lake Wideman.....	10,000
Perth:		Twin Lake.....	10,000
Avon River.....	10,000	Upper Twin Lake.....	10,000
Rainy River:		Loon Lake.....	20,000
Clearwater Lake.....	2,500	Silver Lake.....	10,000
Pine River.....	5,000	Pearl River.....	10,000
Renfrew:		North Branch.....	10,000
Brindle's Creek.....	5,000	Pitch Creek.....	10,000
Brennan's Creek.....	5,000	Six Mile Creek.....	10,000
Simcoe:		Whitewood Creek.....	10,000
Bass Lake, tributary.....	5,000	Three Mile Creek.....	10,000
Mad River.....	5,000	Corbett's Creek.....	10,000
Coldwater River.....	5,000	Current River.....	10,000
Copeland's Creek.....	5,000	Ree's Lake.....	10,000
Sturgeon River.....	5,000	Fox Lake.....	5,000
Noisy River.....	5,000	McVicar's Creek.....	10,000
Nottawasaga River.....	5,000	South Twin Lake.....	2,500
Mad Creek.....	2,500	Neebing River.....	10,000
Parker's Creek.....	5,000	Oliver Lake.....	10,000
Batteau Creek.....	5,000	Bruly Creek.....	10,000
Pretty Rivers.....	5,000	Steel River.....	10,000
Black Ash Creek.....	5,000	Coldwater Creek.....	10,000
Moon Creek.....	5,000	Nipigon River.....	85,000
Hart Creek.....	5,000	Wolf River.....	10,000
Sucker Creek.....	5,000	Grassy Lake.....	2,500
Jeanette's Creek.....	5,000	Whitefish River.....	10,000
McMahon Creek.....	5,000	Whitesand River.....	50,000
Marl Creek.....	5,000	Stewart Lake.....	10,000
O'Neill's Creek.....	2,500	Fraser Creek.....	20,000
Shanahan's Creek.....	2,500	Fleming River.....	50,000
Mathinson's Creek.....	5,000	Gravel River.....	10,000
Stoney Creek.....	5,000	Onamakanash Lake, tributary..	5,000
Reformatory Creek.....	2,500	Castle Lake.....	5,000
		Anderson Lake.....	10,000
		Windy Lake.....	2,500
		Niagara Lake.....	2,500
		Helma Lake.....	2,500
		Timiskaming:	
		Watabeag Creek.....	5,000
		Victoria:	
		Cannington Creek.....	2,500

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1924—*Continued*

<i>Speckled Trout Fry and Fingerlings</i>			
	Quantity		Quantity
Waterloo:		Frontenac:	
Betzner's Creek.....	5,000	Big Clear Lake.....	25,000
St. Agatha Creek.....	5,000	Brule Lake.....	15,000
Conestoga Creek.....	5,000	Long Lake.....	10,000
Grand River.....	5,000	Lucky Lake.....	15,000
Stream near Hespeler.....	5,000	Grey:	
Stream near Waterloo.....	5,000	Saugeen River.....	10,000
Petersburg Creek.....	5,000	Haliburton:	
Sol Kocha Stream.....	5,000	Kashamaganog Lake.....	10,000
Egerdel's Stream.....	5,000	Drag Lake.....	10,000
Ephion Rust Creek.....	5,000	Sayer Lake.....	10,000
Bamberg Creek.....	5,000	Redstone Lake.....	10,000
Schmidt's Stream.....	5,000	Spruce Lake.....	10,000
Wentworth:		Blue Hawk Lake.....	10,000
Ireland Creek.....	5,000	Bob Lakes.....	10,000
Millgrove Creek.....	5,000	Gull Lake.....	10,000
Strabane Creek.....	5,000	Monmouth Lake.....	10,000
Martin's Creek.....	5,000	Davis Lake.....	10,000
Britton Creek.....	5,000	Kuskog Lakes.....	10,000
Binkley Creek.....	5,000	Deer Lake.....	10,000
Wellington:		Monk Lake.....	10,000
Little Saugeen River.....	2,500	McFadden's Lake.....	10,000
Rea's Creek.....	5,000	Otter Lake.....	10,000
Bilton's Creek.....	5,000	Clear Lake.....	10,000
Irwin River.....	5,000	Hall's Lake.....	10,000
Moore's Creek.....	5,000	Ross Lake.....	10,000
Welland:		Bushkonk Lake.....	10,000
St. John's Brook.....	5,000	Sayer's Lake.....	10,000
York:		Buck Lake.....	10,000
Ferguson Stream.....	5,000	Hastings:	
Black River.....	5,000	Papineau Lake.....	20,000
Stream and Pond at Glenville...	15,000	Westlemkoon Lake.....	25,000
		Lake St. Peter.....	10,000
		Eagle Lake.....	25,000
		Poudash Lake.....	10,000
		Jameison Lake.....	20,000
		Cannon's Lake.....	10,000
		Kenora:	
<i>Salmon Trout Fry.</i>		Upper Manitou Lake.....	10,000
Algoma:	Quantity	Malachi Lake.....	10,000
Trout Lake.....	35,000	Minnitako Lake.....	10,000
Lake Superior.....	1,215,000	Rat Portage Bay.....	25,000
North Channel.....	1,421,000	Eagle Lake.....	10,000
Lake La Cloche.....	10,000	Agenak Lake.....	10,000
Ophir Lake.....	10,000	Pelican Lake.....	10,000
Ore Lakes.....	15,000	Lanark:	
Sugar Lake.....	25,000	Dalhousie Lake.....	20,000
Mud Lake.....	10,000	Silver Lake.....	20,000
Herman Lake.....	10,000	Pike Lake.....	20,000
Hawk Lake.....	10,000	Leeds:	
Sand Lake.....	25,000	Charlestone Lake.....	100,000
McCarroll's Lake.....	10,000	Rideau Lakes.....	20,000
Cloudy Lake.....	10,000	Otter Lake.....	10,000
Diamond Lake.....	10,000	Bass Lake.....	20,000
Desbarat's Lake.....	10,000	Indian Lake.....	20,000
Mitchell Lake.....	25,000	Muskoka:	
Island Lake.....	10,000	Lake of Bays.....	610,000
Lake Lauzon.....	50,000	Lake Vernon.....	20,000
Keichel Lake.....	10,000	Fairy Lake.....	10,000
Lonely Lake.....	10,000	North Lake.....	20,000
Echo Bay.....	10,000	Sparrow Lake.....	25,000
Frontenac:		Clear Lake.....	30,000
Sharbot Lake.....	100,000	Bella Lake.....	10,000
Gould Lake.....	15,000	Long Lake.....	30,000
Eagle Lake.....	15,000	Red Chalk Lake.....	10,000
Crow Lake.....	25,000		
White Lake.....	25,000		
Trout Lake.....	50,000		
Devil Lake.....	25,000		

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1924—*Continued*

Salmon Trout Fry

	Quantity
Muskoka:	
Jingo Lake.....	10,000
Skeleton Lake.....	30,000
Walker's Lake.....	10,000
Rebecca Lake.....	10,000
Upper Twin Lake.....	10,000
Lower Twin Lake.....	10,000
Deer Lake.....	10,000

Nipissing:

Cache Lake.....	100,000
Smoke Lake.....	100,000
Island Lake.....	100,000
Otter Lake.....	10,000
Four Mile Lake.....	20,000
Canoe Lake.....	100,000
Source Lake.....	100,000

Parry Sound:

Magnetawan River.....	5,000
Ahmic Lake.....	10,000
Wolf Lake.....	10,000
Clear Lake.....	50,000
Sugar Lake.....	20,000
Sand Lake.....	20,000
Big Clam.....	10,000
Kate's Lake.....	5,000
Spring Lake.....	20,000
Maple Lake.....	10,000
Pickernel River.....	10,000
Martin's Lake.....	10,000
Bacon Lake.....	10,000
Three Mile Lake.....	10,000
Storm Lake.....	10,000
Diamond Lake.....	10,000
Pike Lake.....	10,000
Chain of Lakes.....	10,000
Eagle Lake.....	30,000
Lake Bernard.....	25,000
Trout Lake.....	10,000
Bay Lake.....	5,000
Round Lake.....	5,000

Peterborough:

Swamp Lake.....	10,000
Stoney Lake.....	50,000

Rainy River:

Elbow Lake.....	25,000
Rainy Lake.....	25,000
Alwin Lake.....	25,000

Renfrew:

Clear Lake.....	10,000
Golden Lake.....	10,000
Chemaun Lake.....	10,000
Long Lake.....	10,000
Bobs Lake.....	10,000
Matthew Lake.....	10,000
Fish Lake.....	10,000
Whitefish Lake.....	10,000
Carson's Lake.....	10,000
Gauldt's Lake.....	10,000
Gun Lake.....	10,000
Stringer's Lake.....	10,000

Simcoe:

Edward's Lake.....	10,000
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Sudbury:

	Quantity
Fairbank's Lake.....	20,000
Bell Lake.....	20,000
Long Lake.....	20,000
Ramsay Lake.....	25,000
French River.....	20,000
Otter Lake.....	20,000
Trout Lake.....	20,000
Judd Lake.....	10,000
Bigwood Lake.....	20,000

Thunder Bay:

Lake Nipigon.....	1,000,000
Kashabowie Lake.....	20,000
Lake Shebandawan.....	20,000
Long Lake.....	20,000
Little Long Lake.....	20,000
South Twin Lake.....	10,000
Baril River.....	20,000
Keemle Lake.....	20,000
Lake Helen.....	20,000
Hasel Lake.....	20,000

Timiskaming:

Kenogami Lake.....	10,000
Twin Lakes.....	10,000
Munro Lake.....	10,000
Perry Lake.....	20,000
Watabeag Lake.....	20,000
Morgan Lake.....	10,000
Grave Lake.....	10,000
Three Nations Lake.....	10,000
Lake Timagami.....	25,000
Frere Lake.....	10,000

Victoria:

Sturgeon Lake.....	20,000
Balsam Lake.....	20,000
Four Mile Lake.....	20,000

Wentworth:

Lake Ontario.....	380,000
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Pickarel.

Addington:

Cedar Lake.....	100,000
Beaver Lake.....	200,000
Sand Lake.....	100,000

Algoma:

Lake La Cloche.....	100,000
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Bruce:

Shouldice Lake.....	50,000
Miller Lake.....	50,000
Lake Chesley.....	50,000

Durham:

Scugog Lake.....	1,000,000
Rice Lake.....	500,000
Pigeon River.....	500,000

Frontenac:

Clear Lake.....	100,000
Cole's Lake.....	100,000
Crow Lake.....	100,000
Sydenham Lake.....	100,000
Bob's Lake.....	200,000
Green Bay Lake.....	100,000
Barr's Lake.....	100,000
Third Lake.....	100,000
Long Lake.....	200,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1924—*Continued*

<i>Pickarel.</i>	Quantity	Oxford:	Quantity
Grey:		Maplehurst Lake.....	50,000
McCaslin's Lake.....	50,000	Parry Sound:	
Hastie's Lake.....	50,000	Magnetawan River.....	100,000
Mountain Lake.....	50,000	Ahmic Lake.....	100,000
Lake Charles.....	50,000	Wolf Lake.....	100,000
Lake Francis.....	50,000	Star Lake.....	100,000
Sheppard's Lake.....	50,000	Pickarel Lake.....	150,000
Stewart's Lake.....	50,000	Cecebe Lake.....	100,000
Grenville:		Eagle Lake.....	100,000
Nation River.....	100,000	Doe Lake.....	100,000
Glengarry:		Owl Lake.....	50,000
Lake St. Francis.....	300,000	Stuart's Lake.....	50,000
St. Lawrence River.....	300,000	Goose Lake.....	100,000
Haliburton:		Whitestone Lake.....	200,000
Cedar Lake.....	200,000	Isabella Lake.....	100,000
Devil's Lake.....	100,000	Kashee Lake.....	100,000
Hastings:		Bay Lake.....	100,000
Crow Lake.....	200,000	Key Lake.....	100,000
Jarvis Lake.....	100,000	Compass Lake.....	100,000
Salmon River.....	100,000	Georgian Bay.....	100,000
Crivvea Lake.....	100,000	Prince Edward:	
Bass Lake.....	10,000	Consecon Lake.....	100,000
Gunter Lake.....	100,000	East Lake.....	100,000
Lanark:		Bay of Quinte.....	40,040,000
Dalhousie Lake.....	200,000	South Bay.....	500,000
Mississippi Lake.....	200,000	Peterborough:	
Black Lake.....	100,000	Stoney Lake.....	250,000
White Lake.....	100,000	Clear Lake.....	250,000
Christie Lake.....	100,000	Belmont Lake.....	100,000
Mississippi River.....	100,000	Chemong Lake.....	500,000
Patterson Lake.....	100,000	Gull Lake.....	100,000
Bennett's Lake.....	100,000	Loon Lake.....	100,000
Leeds:		Otonabee River.....	100,000
Charleston Lake.....	500,000	Rainy River:	
Sand Lake.....	50,000	Rainy Lake.....	13,950,000
Opinicon Lake.....	100,000	Renfrew:	
Bass Lake.....	100,000	Golden Lake.....	100,000
Little Lake.....	50,000	Petawawa River.....	100,000
Middlesex:		Murphy's Lake.....	100,000
Thames River.....	100,000	Simcoe:	
Clark's Mill Pond.....	100,000	Bass Lake.....	100,000
Pond Mills.....	100,000	Lake Couchiching.....	700,000
Muskoka:		Severn River.....	500,000
Lake Muskoka.....	1,000,000	Edward's Lake.....	300,000
Lake Joseph.....	1,000,000	First Lake.....	100,000
Lake of Bays.....	1,000,000	Sudbury:	
Lake Rosseau.....	1,000,000	French River.....	200,000
Sparrow Lake.....	1,000,000	Apsey Lake.....	200,000
Clearwater Lake.....	100,000	Skill Lake.....	100,000
Muldrew Lake.....	100,000	Rock Lake.....	150,000
Long Lake.....	100,000	Timiskaming:	
Helve Lake.....	100,000	Three Nations Lake.....	50,000
Deer Lake.....	100,000	Lake Timiskaming.....	250,000
Nipissing:		Round Lake.....	100,000
Lake Nipissing.....	700,000	Lake Abitibi.....	250,000
Green Lake.....	100,000	Commando Lake.....	50,000
Trout Lake.....	100,000	Menan Lake.....	50,000
Norfolk:		Painkiller Lake.....	100,000
Lake Erie.....	950,000	Sanborn Lake.....	100,000
Northumberland:		Victoria:	
Coal Creek.....	100,000	Sturgeon Lake.....	500,000
Codrington Stream.....	50,000	Cameron Lake.....	500,000
		Balsam Lake.....	500,000
		Mud Lake.....	100,000
		Trent Canal.....	50,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1924—*Continued*

<i>Pickeral.</i>			
Waterloo:	Quantity	Thunder Bay:	Quantity
Sunfish Lake.....	100,000	Lake Nipigon.....	10,000,000
Grand River.....	100,000	Kashabowie Lake.....	1,000,000
Wentworth:		Lake Shebandawan.....	1,000,000
Hamilton Bay.....	300,000	Long Lake.....	1,000,000
York:		Little Long Lake.....	1,000,000
Lake Simcoe.....	1,000,000	Lake Helen.....	1,000,000
Shadow Lake.....	100,000	Timiskaming:	
Bond Lake.....	100,000	Lake Timiskaming.....	500,000
		Lake Abitibi.....	500,000
<i>Whitefish</i>		Wentworth:	
Algoma:		Lake Ontario.....	46,500,000
Lake Superior.....	54,825,000		
North Channel.....	29,500,000		
Kenora:			
Upper Manitou Lake.....	500,000	<i>Herring</i>	
Lake Wabigoon.....	2,000,000	Norfolk:	
Pelican Lake.....	5,000,000	Lake Erie.....	11,975,000
Norfolk:		Prince Edward:	
Lake Erie.....	115,469,000	Bay of Quinte.....	3,500,000
Prince Edward:		Wentworth:	
Bay of Quinte.....	126,000,000	Lake Ontario.....	17,000,000
Rainy River:			
Elbow Lake.....	500,000	<i>Rainbow Trout</i>	
Baril Lake.....	500,000	Sudbury:	
Rainy Lake.....	39,675,000	Wahnapiatae River.....	10,000
Little Turtle Lake.....	500,000	Thunder Bay:	
Abwin Lake.....	500,000	Lac-Des-Mille-Lacs.....	5,000

SUMMARY

	Quantity
Small-mouthed Black Bass Fry and Fingerlings.....	338,000
Parent Small-mouthed Black Bass.....	1,111
Speckled Trout Fry and Fingerlings.....	1,898,500
Salmon Trout Fry.....	7,801,000
Pickeral Fry.....	80,250,000
Whitefish Fry.....	437,469,000
Herring Fry.....	32,475,000
Rainbow Trout.....	15,000
Total.....	560,247,611

COMPARATIVE STATEMENT OF DISTRIBUTION

	1922	1923	1924
Small-mouthed Black Bass Fry and Fingerlings.....	613,500	785,000	338,000
Parent Small-mouthed Black Bass.....	937	997	1,111
Speckled Trout.....	2,184,075	2,328,800	1,898,500
Salmon Trout.....	7,815,000	12,410,100	7,801,000
Pickeral.....	43,510,000	36,140,000	80,250,000
Whitefish.....	189,775,000	264,400,000	437,469,000
Herring.....	26,250,000	24,000,000	32,475,000
Rainbow Trout.....	21,000	1,100	15,000
Steel Head Salmon.....	5,300		
Total all species.....	270,174,812	340,065,997	560,247,611

GAME AND FISHERIES

Recapitulation of the number of fishermen, tonnage and value of tugs, vessels and boats, industry during

Districts	Fishing material											
	Tugs				Gasoline Launches			Sail or Row Boats			Gill-Nets	
	No.	Ton-nage	Value	Men	No.	Value	Men	No.	Value	Men	Yards	Value
1 Kenora and Rainy River Districts, including Lake of The Woods.....	3	55	9,700	8	118	51,600	194	75	3,187	47	256,582	37,383
2 Lake Superior.....	12	294	50,500	73	38	14,610	63	66	5,105	108	766,613	66,840
3 North Channel (Lake Huron)	5	101	23,500	21	33	21,215	53	51	3,380	35	176,975	16,301
4 Georgian Bay.....	20	464	165,200	98	115	89,790	218	83	5,695	180	1,136,202	115,824
5 Lake Huron (Proper).....	17	363	86,915	88	71	41,300	136	43	3,495	85	977,570	104,925
6 Lake St. Clair, St. Clair River and Detroit River.....					51	18,760	73	88	5,125	134		
7 Lake Erie, including Upper Niagara River.....	37	1,013	278,500	241	135	124,500	354	196	19,900	242	1,319,616	151,031
8 Lake Ontario, including Lower Niagara and St. Lawrence River.....					357	141,140	648	372	19,124	571	1,679,528	155,139
9 Inland Waters, including Lake Nipigon, Lake Nipissing, Lake Simcoe and Ottawa River.....	9	149	34,500	47	57	28,410	115	203	7,590	435	189,650	24,209
Totals.....	103	2,439	648,815	576	975	531,325	1,854	1,177	72,601	1,837	6,502,736	671,652

Recapitulation of the kinds, quantities and

Districts	Herring	Whitefish	Trout	Pike	Pickarel (Dore)	Sturgeon
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1 Kenora and Rainy River Districts, including Lake of The Woods.....		735,380	86,351	602,703	1,398,444	43,100
2 Lake Superior.....	1,049,573	282,806	1,711,028	19,480	81,167	3,677
3 North Channel (Lake Huron).....	7,428	200,023	382,719	90,887	207,619	9,353
4 Georgian Bay.....	37,522	1,082,546	1,534,986	100,191	116,095	5,298
5 Lake Huron (Proper).....	210,185	193,122	1,872,077	3,898	178,734	7,532
6 St. Clair River, Lake St. Clair and Detroit River.....	300	1,150	.....	23,237	67,026	18,591
7 Lake Erie, including Upper Niagara River.....	10,907,928	580,356	511	71,696	614,821	43,778
8 Lake Ontario, including Lower Niagara and St. Lawrence Rivers.....	263,135	2,653,810	938,994	255,982	121,604	6,541
9 Inland Waters, including Lake Nipigon, Lake Nipissing, Lake Simcoe and Ottawa River.....	25,262	962,567	355,476	125,262	179,082	143,285
Totals.....	12,501,333	6,691,760	6,882,142	1,293,336	2,964,592	281,155
Values.....	\$ c. 500,053 32	\$ c. 803,011 20	\$ c. 757,035 62	\$ c. 64,666 80	\$ c. 415,042 88	\$ c. 92,781 15

DEPARTMENT, ONTARIO

the quantity and value of all fishing materials and other fixtures employed in the fishing the year 1924.

Fishing material													Other fixtures used in fishing.			
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
.....			72	19,405	35	1,630	.....		.....		.....		94	35,385	64	11,150
.....			56	26,350	.....		.....		500	25	.....		17	12,500	23	10,200
.....			107	48,650	24	2,750	.....		.....		.....		33	9,120	28	12,595
11	1,125	680	86	55,350	40	920	.....		31,246	3,771	6	19	37	20,505	39	13,850
1	100	50	103	63,250	2	100	7	24	5,067	455	.....		41	9,735	23	8,630
47	8,630	6,325	220	26,800	2	60	.....		5,600	332	.....		42	13,025	24	8,925
51	12,481	9,278	642	385,400	62	1,673	10	70	7,090	501	.....		107	127,365	55	24,535
28	1,529	1,761	.....	.....	812	27,527	7	362	23,632	1,059	.....		80	13,235	40	6,975
70	5,402	8,102	37	12,100	279	10,450	46	384	5,550	193	120	857	66	12,961	26	3,615
208	29,267	26,196	1,323	637,305	1,256	45,110	70	840	78,685	6,336	126	876	517	253,831	322	100,475

values of fish caught during the year 1924

Eels	Perch	Tullibee	Catfish	Carp	Mixed and Coarse Fish	Caviare	Pickerel (Blue)	Total Production	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	\$ c.
.....	9,862	255,373	.....	14,484	207,999	1,397	3,902	3,358,995	362,436 87
.....	57	959	.....	1,974	65,133	.....	.....	3,215,854	280,418 59
.....	12,369	404	500	1,213	460,970	139	.....	1,373,624	122,479 84
.....	3,151	95,897	5,764	45,759	79,590	289	1,710	3,108,798	334,166 69
.....	92,857	144,715	506	3,486	73,263	651	.....	2,781,026	281,239 31
.....	101,311	.....	39,978	376,927	371,306	413	12,900	1,013,139	55,800 65
24	2,191,730	.....	57,199	288,598	1,231,170	1,381	2,988,097	18,977,289	906,240 04
128,376	79,963	.....	161,766	78,464	446,523	47	47,801	5,183,006	517,967 74
21,343	24,532	3,035	107,148	301,404	465,636	1,213	5,688	2,720,933	278,529 30
149,743	2,515,832	500,383	372,861	1,112,309	3,401,590	5,530	3,060,098	41,732,664	.....
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
17,969 16	125,791 60	25,019 15	26,100 27	44,492 36	136,063 60	8,848 00	122,403 92	.....	3,139,279 03

A COMPARATIVE STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO

Kind of Fish	1923 lbs.	1924 lbs.	Increase lbs.	Decrease lbs.
Herring.....	10,836,312	12,501,333	1,665,021	
Whitefish.....	6,522,108	6,691,760	169,652	
Trout.....	6,240,352	6,882,142	641,790	
Pike.....	1,196,230	1,293,336	97,106	
Pickarel (Dore).....	2,691,195	2,964,592	273,397	
Sturgeon.....	143,865	281,155	137,290	
Eels.....	144,645	149,743	5,098	
Perch.....	2,700,922	2,515,832		185,090
Tullibee.....	315,081	500,383	185,302	
Catfish.....	397,108	372,861		24,247
Carp.....	1,133,321	1,112,309		21,012
Coarse fish.....	3,014,319	3,401,590	387,271	
Caviare.....	4,469	5,530	1,061	
Pickarel (Blue).....	3,254,755	3,060,098		194,657
Totals.....	38,594,682	41,732,664	3,137,982	(net increase)

STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO FOR THE YEAR 1924 AS FURNISHED BY THE FISHERMEN'S ANNUAL RETURNS

Kind of Fish	Quantity	Price per lb.	Values
		\$ c.	\$ c.
Herring.....	12,501,333	04	500,053 32
Whitefish.....	6,691,760	12	803,011 20
Trout.....	6,882,142	11	757,035 62
Pike.....	1,293,336	05	64,666 80
Pickarel (Dore).....	2,964,592	14	415,042 88
Sturgeon.....	281,155	33	92,781 15
Eels.....	149,743	12	17,969 16
Perch.....	2,515,832	05	125,791 60
Tullibee.....	500,383	05	25,019 15
Catfish.....	372,861	07	26,100 27
Carp.....	1,112,309	04	44,492 36
Coarse fish.....	3,401,590	04	136,063 60
Caviare.....	5,530	1 60	8,848 00
Pickarel (Blue).....	3,060,098	04	122,403 92
Total.....	41,732,664		3,139,279 03

VALUE OF ONTARIO FISHERIES FOR A PERIOD OF TWENTY YEARS, 1905 TO 1924 INCLUSIVE

Year	Value \$ c.	Year	Value \$ c.
1905	1,708,963 00	1915	3,341,181 41
1906	1,734,865 00	1916	2,658,993 43
1907	1,935,024 90	1917	2,866,424 00
1908	2,100,078 63	1918	3,175,110 32
1909	2,237,544 41	1919	2,721,440 24
1910	2,348,269 57	1920	2,691,093 74
1911	2,419,178 21	1921	2,656,775 82
1912	2,842,877 09	1922	2,807,525 21
1913	2,674,686 76	1923	2,886,398 76
1914	2,755,293 11	1924	3,139,279 03

STATEMENT OF THE EQUIPMENT AND ITS VALUE, USED IN THE FISHING INDUSTRY OF THE PROVINCE
OF ONTARIO, DURING THE YEAR 1924

	Number	Values
		\$ c.
Tugs (2,439 tons).....	103	648,815 00
Gasoline Boats.....	975	531,325 00
Sail or Row Boats.....	1,177	72,601 00
Gill nets (6,502,736 yards).....	.....	671,652 00
Seine Nets (29,267 yards).....	208	26,196 00
Pound Nets.....	1,323	637,305 00
Hoop Nets.....	1,256	45,110 00
Dip or Roll Nets.....	70	840 00
Baited Hooks.....	78,685	6,336 00
Spears.....	126	876 00
Freezers and Ice Houses.....	517	253,831 00
Piers and Wharves.....	322	100,475 00

Number of men employed on tugs.....	576
Number of men employed on gasoline boats.....	1,854
Number of men employed on sail or row boats.....	1,837
Total number of men employed.....	4,267



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Jas. G. Sallie, Jr.

June 18, 1931

Nineteenth Annual Report

Government
Publications

OF THE

GAME AND FISHERIES
DEPARTMENT

1925

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO

Printed and Published by Clarkson W. James, Printer to the King's Most Excellent Majesty
1926

Nineteenth Annual Report

OF THE

GAME AND FISHERIES
DEPARTMENT

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TORONTO

Printed and Published by Clarkson W. James, Printer to the King's Most Excellent Majesty
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To His Honour HENRY COCKSHUTT, ESQ.,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Nineteenth Annual Report of the Game and Fisheries Department of this Province.

I have the honour to be

Your Honour's most obedient servant,

CHARLES MCCREA,

Minister of Mines.

Toronto, 1926.



NINETEENTH ANNUAL REPORT

OF THE

Game and Fisheries Department of Ontario

TO THE HONOURABLE CHARLES MCCREA,
Minister of Mines.

SIR:—I have the honour of placing before you the Nineteenth Annual Report of the work of the Game and Fisheries Department for the fiscal year ending on October 31st, 1925.

REVENUE

A gross revenue of \$709,455.73 was received and expenditures made of \$354,736.09, leaving a net surplus for the year of \$354,719.64. The revenue for the year was the second largest in the Department's history, and exceeded the previous year by \$42,227.77.

COMPARATIVE STATEMENT OF REVENUE AND EXPENDITURE, 1923-1925 INCLUSIVE, AS SHOWN IN THE PUBLIC ACCOUNTS

	Revenue	Expenditure	Surplus
1923.....	\$521,143 08	\$391,422 19	\$229,725 89
1924.....	667,227 95	336,826 96	330,401 00
1925.....	709,455 73	354,736 09	354,719 64

In addition to the general expenditures, the administration of the Wolf Bounty Act comes under the Department's control, and bounties were paid for the year as follows:

Wolf bounties..... \$25,465 62

For comparative purposes, the revenue received from Game and Fish for the past two years were as follows:

	1924	1925	
Revenue from game.....	\$372,142 54	\$402,314 19	\$30,171 65—Inc.
Revenue from fish.....	295,085 42	307,141 54	12,056 12—Inc.

In a previous report attention was drawn to the steady increase of revenue from the sale of Angling Licenses which now totals \$128,115.00, and for the first time has exceeded the license fees received from the entire commercial fisheries of the Province.

STATISTICS

The statistics accompanying this report will show in detail the kinds, quantities and values of commercial fish, also the varieties, quantities and locations of fry and fingerlings distributed from Provincial Hatcheries, together with other statistics pertaining to the fur trade, as well as other branches of the Department. All of which has been carefully prepared and affords interesting and valuable information.

FISH

The statistics of the commercial fisheries of the Province are shown in comparison as follows:—

	1923	1924	1925
Gill nets licensed (yards).....	6,018,801	6,502,736	6,877,398
Seines “	172	208	139
Pound nets “	1,265	1,323	1,334
Hoop nets “	1,263	1,256	1,195
Dip and roll nets licensed.....	36	70	43
Spears “	125	126	144
Hooks “	71,336	78,685	98,607
Number of men employed.....	3,742	4,267	4,263
Number of tugs.....	100	103	112
Number of gasoline boats.....	894	975	1,018
Number of sail or row boats.....	1,080	1,177	1,086
Value of boats, ice-houses, wharves and twine.....	\$2,807,368 00	\$2,995,362 00	\$3,235,510 00
Aggregate catch in pounds.....	38,594,682	41,732,664	34,385,335
Value to fishermen.....	\$2,886,398 76	\$3,139,279 03	\$2,858,854 79

ANGLING

There was an unusual demand for non-resident Angling Licenses this year, and for a number of years a steady increase in revenue from this source has taken place, as will be shown by the following comparisons:—

	1922	1923	1924	1925
Revenue from Angling Licenses.	\$63,132 00	\$77,856 75	\$105,862 50	\$128,115 00

Although game fishing is reported as good in various parts of the Province, it can be readily seen that the yearly toll is fast increasing and places a demand on the hatcheries that will require the maximum production to maintain a supply that will satisfy the steadily increasing resident and non-resident anglers.

HATCHERIES

Elsewhere in this report will be found in detail the quantities and varieties of fry and fingerlings placed in various waters of the Province from hatcheries located at Mount Pleasant, Glenora, Sault Ste. Marie, Normandale, Port Carling, Port Arthur and Fort Frances, and for comparative purposes with the previous year, the following figures show a summary of total distribution:—

	1923	1924	1925
Whitefish Fry.....	264,400,000	437,469,000	246,125,500
Pickrel Fry.....	36,140,000	80,250,000	49,015,000
Salmon Trout Fingerlings and Fry.....	12,410,100	7,801,000	7,320,425
Herring Fry.....	24,000,000	32,475,000	45,050,500
Rainbow Trout Fry and Fingerlings.....	1,100	15,000	3,000
Speckled Trout Fingerlings and Fry.....	2,328,800	1,898,500	676,700
Black Bass Fingerlings and Fry.....	785,000	338,000	Nil
Parent Black Bass.....	997	1,111	611
	<u>340,065,997</u>	<u>560,247,611</u>	<u>348,191,736</u>

The public are demanding every year a distribution of fry and fingerlings much in excess of the possible supply obtainable from the Provincial Hatcheries, and this is particularly so in regard to Game Fish. The distribution of small-mouthed black bass is made from fry and fingerlings obtained by placing parent fish in artificial ponds, but as this was an abnormal season and the weather unusually cold, the hatch of small-mouthed black bass resulted in a total failure, and all applicants for such fry and fingerlings were disappointed. In order

that a greater and more dependable supply of speckled trout can be obtained, the Department has commenced work on Normandale Creek, where ponds and other facilities are being constructed, and from satisfactory results so far obtained, it would appear to fully warrant the expenditure undertaken. From fry placed in these waters in the spring of 1924, the Department has now a quantity of strong, healthy fish measuring from 6 inches to 10 inches, and it is anticipated that three-quarters of a million speckled trout spawn will be obtainable during the fall collection. This result is beyond our earlier expectations, and many million of spawn should be collectable from these waters when fully developed.

GAME PRESERVES

The propagation of English Ring-necked Pheasants was again successfully carried on at the Eugenia Crown Game Preserve. A number of small areas were created as Crown Game Preserves during the year, as well as the large game preserve known as "The Chapleau Game Preserve," located west and north of Chapleau, and such preserve contains approximately 2,850 square miles. This has been advocated by the Department for a number of years, and with proper administration will prove of great value in conserving both fish and game in that district, as well as provide an attraction for the tourist.

During the year considerable wild rice seed was planted in public waters throughout the Province, and from reports obtained the planting from previous years has been successful in improving depleted rice beds and in establishing new rice beds as feeding grounds for wild life.

GAME

Deer and Moose.—Big game continues to be plentiful, and another successful hunting season has been reported. For comparative purposes the following figures show the number of hunting licenses issued for the past five years:—

	1921	1922	1923	1924	1925
Resident Moose.....	1,989	1,584	1,098	1,385	1,291
Resident Deer.....	18,689	20,504	17,877	19,517	17,034
Non-resident Hunting...	950	1,256	1,247	1,651	1,581

Ruffed Grouse (Partridge).—The scarcity of these game birds warranted a continued close season for the year, and they are reported as being very scarce particularly in the northwesterly part of the Province.

Sharp-tailed Grouse or Prairie Hen are now quite well established in the District of Thunder Bay and west thereof.

Quail are not found in any great numbers except in the southwest part of the Province where conditions warranted an open season of three days in the Counties of Essex and Kent.

Pheasants are now reported in a large number of counties, but not in large numbers, except in the Counties of Lincoln and Welland, where conditions warranted an open season for one day for a limited number of male birds.

Ducks and Geese continue to be plentiful.

FURS

The value of the pelts on which royalty was paid during the year is in excess of the previous year, although the number of pelts is somewhat lower.

Beaver show a further decline, although not nearly as great a decline as for the preceding year.

Otter show a steady catch for a number of years.

Mink show a much smaller catch than last year.

Marten and Fisher are becoming scarcer each year.

Muskrat show a steady catch for a number of years.

COMPARISON OF PELTS EXPORTED AND TANNED FOR FIVE YEARS

	1921	1922	1923	1924	1925
Beaver.....	95,479	93,971	70,684	50,233	48,364
Otter.....	4,759	5,309	3,997	5,096	4,522
Fisher.....	2,602	2,657	2,339	1,910	1,936
Marten.....	6,533	7,327	4,704	3,661	3,125
Mink.....	42,667	78,487	58,634	82,446	68,138
Muskrat.....	479,866	554,888	478,820	533,256	534,739
Bear.....	1,494	2,137	1,447	1,399	2,014
Fox (Cross).....	287	469	1,154	1,082	2,601
Fox (Red).....	5,282	11,272	12,329	14,695	22,198
Fox (Silver or Black)....	153	87	205	167	433
Fox (White).....	351	1,765	1,501	362	974
Fox (not specified).....	23	170	34	28	61
Lynx.....	591	836	1,177	2,332	2,200
Raccoon.....	11,951	20,344	15,752	21,976	22,157
Skunk.....	47,121	73,219	54,770	58,130	67,100
Weasel.....	58,898	94,399	61,603	51,163	34,365
Wolverine.....	12	6	20	12	8
Total.....	762,069	947,343	769,070	827,948	814,935

To be added to the above are 1,134 ranch-raised fox pelts which were tanned or exported without payment of royalty, under the terms of Fur Farmers' Licenses.

The value of pelts to the trapper shown for the year on above list is \$3,383,-060.57, and the Federal Statistics show Ontario to far exceed the fur production of any other Province.

FUR FARMING

A continued interest is shown for information pertaining to Fur Farming, and a corresponding increase in licenses for the year has resulted.

	1922	1923	1924	1925
Fur Farmers' Licenses issued.....	141	284	392	624

Animals stocked on licensed farms:—

	1922	1923	1924	1925
Beaver.....	4	2	10	29
Fisher.....	3	6	6	2
Fox (Cross).....	270	361	386	459
Fox (Red).....	206	323	347	725
Fox (Silver Black).....	1,088	2,171	3,006	4,940
Fox (Blue).....	.....	.....	.....	40
Lynx.....	2	2	2	2
Mink.....	94	73	97	136
Muskrat.....	.....	163	2,904	7,182
Opossum.....	6	.....	.....	.....
Raccoon.....	50	130	149	306
Skunk.....	82	46	136	100
Bear.....	.....	.....	11	13
Marten.....	.....	.....	.....	2
Total.....	1,805	3,277	7,056	13,936

ENFORCEMENT OF THE ACT

The district wardens and officers in the outside service have enforced the provisions of the Act and Regulations to the best of their ability, and the following figures will be of interest:—

SUMMARY OF CONVICTIONS AND FINES

Convictions reported.	728
Fines collected.....	\$15,630 86

A great many articles were confiscated during the year, including:—

3,524 Pelts	15 Trap nets	1 Truck
18 Deer and Moose hides	47 Spears	2 Motor cars
24 Live animals	62 Rods and lines	13 Jack-lights & Lanterns
9,290 pounds fish	655 Traps	27 Deer
1,276 yards gill nets	181 Fire-arms	414 pounds venison
655 pieces gill nets	10 Gasoline boats	7 Moose
24 Dip nets	17 Row-boats	1,040 pounds Moose meat
11 Hoop nets	3 Canoes	24 Partridge
10 Seine nets	1 Steam tug	82 Ducks
5 Roll nets	6 Punts	6 Pheasants
		102 Decoys

All confiscations are sold at advertised sales by tender, other than such articles as are sold by the Department to the former owner, when circumstances warrant.

ACKNOWLEDGMENTS

Before closing my report I must publicly express my appreciation for the assistance and support rendered to the Department during the year, not only for the loyalty of the staff of both the inside and outside service, but for the assistance of the transportation companies who helped our officers in their duties pertaining to the enforcement of the Act and with the distribution of fry, whether by baggage car or by the official car "Beaver."

All statistics referred to will be found elsewhere in this report, together with many other statistics in detail.

All of which is respectfully submitted.

I am, Sir,

Your obedient servant,

D. McDONALD,
Deputy Minister of Game and Fisheries.

REVENUE RECEIVED BY DEPARTMENT OF GAME AND FISHERIES
DURING YEAR ENDING OCTOBER 31ST, 1925

GAME

Royalty.....	\$146,846 66	
Trappers' Licenses.....	46,731 12	
Non-resident Hunting Licenses.....	56,505 00	
Deer Licenses.....	60,281 50	
Moose Licenses.....	6,669 50	
Fur Dealers' Licenses.....	54,146 00	
Fur Farmers' Licenses.....	3,280 00	
Tanners' Licenses.....	190 00	
Game Dealers' Licenses.....	496 00	
Hotel and Restaurant Licenses, etc.....	431 00	
Cold Storage Licenses.....	225 00	
Guides' Licenses.....	3,087 50	
Fines, Game and Fish.....	15,630 86	
Sales.....	6,157 15	
Commissions.....	1,636 90	
		\$402,314 19

FISHERIES

Fishing Licenses.....	\$128,033 00	
Royalty.....	39,189 13	
Angling Licenses.....	128,115 00	
Sales.....	6,708 61	
Rentals.....	2,780 00	
Miscellaneous.....	2,315 80	
		\$307,141 54
Total.....		\$709,455 73

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1925

<i>Speckled Trout Fry and Fingerlings</i>		Bruce:		Quantity
Algoma:	Quantity	Thomson's Creek.....		500
Moose Lake.....	2,000	Teeswater River.....		500
Trout Lake.....	2,000	Hammond Creek.....		500
Agawa Lake.....	2,000	Wolf Creek.....		500
Mongoose Lake.....	2,000	Elphick's Creek.....		500
Spruce Lake.....	2,000	Plum Creek.....		500
Loon Lake.....	2,000	Unnamed Creek.....		500
Pine Lake.....	2,000	Judges Creek.....		500
Hobon Lake.....	2,000	Kirklands Creek.....		500
Alva Lake.....	2,000	Lang's Creek.....		500
Hawk Lake.....	2,000	Bowles' Creek.....		500
Chippawa River.....	4,000	Potter's Creek.....		500
Sand Lake and Creek.....	4,000	Crawford Creek.....		500
Deer Lake.....	2,000	Coles Creek.....		500
Carpenter Lake.....	2,000			
Wartz Lake.....	2,000	Durham:		
Lily Lake.....	2,000	Canton Creek.....		1,500
Island Lake.....	2,000	Tyrene Creek and Tributaries.....		4,500
Clearwater Creek.....	2,000	Wilmot's Creek.....		1,500
Camp Lake Stream.....	2,000	Dick William's Creek.....		500
Speckled Trout Lake.....	2,000	Britain Creek.....		1,500
Magpie River.....	2,000	Haydon Creek.....		4,500
Little Groundhog River.....	2,000	Wilson's Creek.....		3,000
John Creek.....	2,000	Smith Creek.....		1,500
Oba River.....	7,000	Spring Creek.....		400
		Cedarvale Creek.....		1,500
Brant:		Mountjoy's Creek.....		4,500
Ausbrook Stream.....	500	Steven's Creek.....		3,000
		Bees Creek.....		1,500
Bruce:		Bell Hill Stream.....		1,500
Vance Creek.....	500	Kendal Creek and Tributaries.....		7,500
Phillip's Creek.....	2,000	McKindley's Creek.....		1,500
Park Head Creek.....	500	Robinson's Creek.....		1,500

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1925—*Continued*

<i>Speckled Trout Fry and Fingerlings</i>		Hastings:	Quantity
Durham— <i>Continued</i>		Deer River.....	3,000
Walter's Creek.....	1,500	Rawdon Creek.....	4,500
Liskard Creek.....	1,500	Unnamed Creeks.....	1,500
English Creek.....	1,500	Gowdy Creek.....	1,500
Millbrook Pond.....	1,500	Lanark:	
Mastwood's Creek.....	1,500	Pauls Creek.....	1,500
Nichol's Creek.....	1,500	Allan's Brook.....	1,500
Langstaff Creek.....	1,500	Jims Creek.....	1,500
Gibson Creek.....	1,500	Grant's Creek.....	1,500
Little's Creek.....	1,500	Middlesex:	
Brimacombe Creek.....	1,500	Duncrief's Creek.....	500
Community Park Stream.....	1,500	River Wye.....	500
Pasture Creek.....	1,500	Crow Creek.....	1,000
Orono Creek.....	1,500	Aux Sauble River.....	500
Falls Creek.....	1,500	Detty Creek.....	500
Clarke East Creek.....	1,500	Manitoulin:	
Squirrel Creek.....	1,500	Mindemeya River.....	2,000
McMillen's Creek.....	1,500	Muskoka:	
Austin's Creek.....	1,500	Muskoka River.....	4,000
Bran's Creek.....	1,500	White Lake.....	2,000
Crossland's Creek.....	1,500	Chub Lake.....	2,000
Muldune Creek.....	1,500	Wasoca Lake.....	2,000
Moore's Creek.....	3,000	Harp Lake.....	2,000
Elizabethville Creek.....	1,500	Menominee Lake.....	2,000
Sowdon's Creek.....	1,500	Chisholm's Lake.....	2,000
DeLong Creek.....	1,500	Pages Lake.....	2,000
Perrytown Creek.....	1,500	Spring Lake.....	2,000
Caldwell Creek.....	1,500	McMaster Lake.....	2,000
Patterson's Creek.....	500	Echo Lake.....	2,000
Ball Creek.....	400	Nipissing:	
Dufferin:		Four Mile Creek.....	2,500
Funston's River.....	500	North River.....	2,500
Spitting John River.....	500	Norfolk:	
Cross River.....	500	Patterson's Creek.....	1,000
Unnamed Creeks.....	500	Kent Creek.....	500
Elgin:		North Creek.....	400
Stanley Creek.....	500	Venison Creek.....	400
Frontenac:		St. William's Creek.....	500
Trout Lake Creek.....	1,500	Outlet Stream.....	500
Eagle Creek.....	1,500	Big Creek.....	400
Gréy:		Deer Lick.....	500
Bell Lake.....	500	Dowger Creek.....	500
Saugeen River.....	5,500	Northumberland:	
Silver Creek.....	2,000	Woodland Creek.....	1,500
Lawrence Creek.....	500	Mutton's Creek.....	3,000
Styx River.....	500	Allen's Creek.....	1,500
Weidendorf Creek.....	500	West Creek.....	1,500
Bontick Creek.....	500	Tweedle's Creek.....	1,500
Huron:		Dark Creek.....	1,500
Stoltz Creek.....	500	Harper's Creek.....	1,500
Nine Mile River.....	500	Hopkins' Creek.....	1,500
Raus Creek.....	500	Burnley Creek.....	3,000
Johnston's Creek.....	500	Russ Creek.....	3,000
Blythe Creek.....	500	Camborne Creek.....	3,000
Wright's Creek.....	500	Smylie's Creek.....	1,500
Bells Creek.....	500	Philip's Creek.....	3,000
Bridgewater Creek.....	500	Warren's Creek.....	1,500
Scotts Creek.....	500	Forestell's Creek.....	1,500
Halton:		Dumbel Mill Pond.....	1,500
Twelve Mile Creek.....	500	Davey's Creek.....	3,000
		Harris' Creek.....	1,500

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1925—*Continued*

<i>Speckled Trout Fry and Fingerlings</i>		<i>Sudbury—Continued</i>		Quantity
<i>Northumberland—Continued</i>		Quantity		
Ingram's Creek	1,500	Rapid River		5,000
Braden Creek	1,500	Post River		5,000
Cobourg Creek	1,500	Rock Lake		10,000
Staple's Creek	1,500	Junction Creek McKinn		5,000
Standley Farm Creek	1,500	Venne Creek		5,000
Bellyon Creek	1,500	Ashgaring Lake		5,000
Hardy's Creek	1,500	Three Mile Creek		5,000
Durran's Creek	1,500			
Trent Bridge Creek	1,500	<i>Thunder Fa :</i>		
<i>Oxford:</i>		Allen Lake		5,000
Unnamed Creeks	2,000	Kashabowie Lake		5,000
Wright's Creek	500	Long Lake		5,000
Whiting Creek	500	Moose Lake		5,000
Five Points Creek	500	McKenzie River		5,000
		Lake Widenan		5,000
<i>Parry Sound:</i>		Lower Twin Lake		5,000
Magnetawan River	2,000	Upper Twin Lake		5,000
Bolger Lake Tributaries	2,000	Silver Lake		5,000
Sword's Creek	2,000	North Branch		5,000
Rouches' Lake	2,000	McIntyre Creek		5,000
Black Creek	2,000	Rees Lake		5,000
Lake Bernard Inlet	2,000	Steel River		20,000
Pool Lake Outlet	2,000	Nipigon River		40,000
Genesee Creek	2,000	Stewart Lake		5,000
		Fraser Creek		20,000
<i>Peterboro:</i>		Gravel River		10,000
Ouse Creek	1,500	Deception Lake		10,000
Leary's Creek	1,500	Anderson Lake		5,000
Dixon's Creek	1,500	Caribou Lake		5,000
Best's Creek	1,500	Sunset Lake		5,000
Janieson's Creek	1,900	Cascade Stream		5,000
Sunset Creek	500	McKenzie Lake		5,000
Little Ouse	1,500	Clegg Lake		5,000
		Maud Lake		5,000
<i>Peel:</i>		Rapay Lake		5,000
Credit River and Tributaries	3,000	McComb Lake		5,000
Cold Creek	500	Franz Lake		5,000
Humber River	2,000	Tesky Lake		5,000
		Luck Lake		5,000
<i>Renfrew:</i>		Gagnon Lake		5,000
Brindle's Creek	2,000	Blacklock Lake		5,000
		Schreiber Lake		10,000
<i>Simcoe:</i>		Wolf Lake		5,000
Mad River	2,000	Trowbridge Stream		5,000
Boyne River	2,000			
Coldwater River	2,000	<i>Timiskaming:</i>		
Sturgeon River	2,000	Moffat Creek		2,000
Noisy River	2,000			
Nottawasaga River	2,000	<i>Waterloo:</i>		
Batteau Creek	2,000	Erbsville Creek		500
Pretty Rivers	2,000	Hespeler Stream		400
Black Ash Creek	2,000	Reist's Creek		500
O'Neil's Creek	2,000	Grundig Dam		500
Pilon Creek	2,000	Hanacher's Creek		500
Port Racheal Creek	2,000	Jantz Creek		500
Wilson's Creek	2,000	Cressman Dam		500
Bear Creek	2,000	Cedar Creek		400
Painswick Creek	2,000	Bescharadt Creek		500
Rooker Creek	2,000	Musselman's Creek		500
Hukling Creek	4,000	Hamel Creek		500
Rose Creek	2,000	Gingrech Creek		500
Big Creek	2,000	Sweitzers Creek		500
		Bamberg Creek		500
<i>Sudbury:</i>		Snider's Creek		500
Onaping River	5,000	Bridgeport Creek		500
Emery Creek	5,000	Canagagigue Creek		1,000
		Mickie's Creek		500
		Miller Creek		500
		Breslau Dam		500

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1925—*Continued*

<i>Speckled Trout Fry and Fingerlings</i>			
Wentworth:	Quantity	Kenora:	Quantity
Millgrove Creek.....	500	Gun Lake.....	25,000
Gunby Creek.....	500	Fox Lake.....	25,000
Beverley Creek.....	500	Lake of the Woods.....	750,000
Strabane Creek.....	500	Eagle Lake.....	25,000
Martin's Creek.....	500	Armstrong Lake.....	25,000
Britton Creek.....	500		
Pinkley Creek.....	500	Lanark:	
Wellington:		Silver Lake.....	20,000
Guelph Mill Creek.....	500	Robertson's Lake.....	25,000
		Pike Lake.....	20,000
York:		Leeds:	
Glenville Pond.....	1,500	Charleston Lake.....	100,000
		Rideau Lakes.....	100,000
		Opinicon Lake.....	50,000
		Crosby Lake.....	25,000
		Indian Lake.....	100,000
		Basin Lake.....	25,000
<i>Salmon Trout Fry and Fingerlings</i>			
Great Lakes:	Quantity	Manitoulin:	
Lake Ontario.....	1,571,425	Lake Manitou.....	50,000
Addington:		Muskoka:	
Bass Lake.....	15,000	Lake of Bays.....	500,000
Algoma:		Lake Vernon.....	20,000
Trout Lake.....	25,000	Mary Lake.....	20,000
Lake Superior.....	200,000	Sparrow Lake.....	25,000
Ophir Lake.....	25,000	Gull Lake.....	20,000
Sand Lake.....	25,000	Clear Lake.....	40,000
Mitchell Lake.....	25,000	Skeleton Lake.....	20,000
Island Lake.....	25,000	Walker's Lake.....	20,000
Oba Lake.....	50,000	Buck Lake.....	20,000
Lake Anjigami.....	25,000	Near Cut Lake.....	10,000
Hunter Lake.....	25,000	Surprise Lake.....	20,000
Frontenac:		Lake Nipissing.....	4,000
Sharbot Lake.....	50,000	Nipissing:	
Crow Lake.....	25,000	Trout Lake.....	25,000
Loughborough Lake.....	50,000	Turtle Lake.....	25,000
Trout Lake.....	50,000	Talon Lake.....	25,000
Haliburton:		Crooked Lake.....	25,000
Kashamagamog Lake.....	15,000	Lake Miron.....	10,000
Gull Lake.....	20,000	Gilmour Lake.....	25,000
Farquar Lake.....	15,000		
McFadden's Lake.....	20,000	Parry Sound:	
Otter Lake.....	15,000	Long Lake.....	20,000
Hall's Lake.....	30,000	Deer Lake.....	20,000
Ross Lake.....	15,000	Clear Lake.....	20,000
Bow Lake.....	20,000	Sugar Lake.....	20,000
Bare Lake.....	10,000	Sand Lake.....	20,000
Stormy Lake.....	10,000	Horne Lake.....	20,000
Wolf Lake.....	10,000	Kate's Lake.....	20,000
Pine Lake.....	10,000	Spring Lake.....	20,000
Kinnis Lake.....	15,000	Maple Lake.....	20,000
Paint Lake.....	15,000	Braye Lake.....	20,000
Kingscott Lake.....	15,000	Eagle Lake.....	20,000
Haliburton Lake.....	15,000	Lake Bernard.....	20,000
McClarence Lake.....	15,000	Round Lake.....	20,000
Hastings:		Bittern Lake.....	20,000
Long Lake.....	15,000	Peter's Lake.....	20,000
Papineau Lake.....	20,000	Lynx Lake.....	20,000
Westlemkoon Lake.....	40,000	Bartlett's Lake.....	20,000
Baptiste Lake.....	15,000	Oliver Lake.....	20,000
Salmon Lake.....	20,000	Paisley Lake.....	20,000
Wadsworth Lake.....	20,000	Three Legged Lake.....	20,000
		Ka-Wig-A-Mog Lake.....	20,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1925—*Continued*

<i>Salmon Trout Fry and Fingerlings</i>			
Peterborough:	Quantity	Frontenac:	Quantity
Swamp Lake.....	15,000	Gull Lake.....	100,000
Upper Stoney Lake.....	100,000	Clear Lake.....	100,000
Thunder Bay:		Eagle Lake.....	100,000
Baril Lake.....	25,000	Crow Lake.....	100,000
Rainy River:		Loughborough Lake.....	1,000,000
Bad Vermillion Lake.....	25,000	Bob's Lake.....	100,000
Renfrew:		Green Bay Lake.....	100,000
Muskrat Lake.....	20,000	Lake Massongen.....	100,000
Carson's Lake.....	20,000	Marble Lake.....	100,000
Pough Lake.....	20,000	Bass Lake.....	100,000
Trout Lake.....	20,000	Elbow Lake.....	100,000
Simcoe:		Big Gull Lake.....	100,000
Edward's Lake.....	10,000	Crotch Lake.....	100,000
Sudbury:		Long Lake.....	200,000
Trout Lake.....	25,000	Grey:	
Ramsay Lake.....	50,000	McCaslin's Lake.....	50,000
Bass Lake.....	25,000	McColl Lake.....	50,000
Richard Lake.....	25,000	Hastie's Lake.....	50,000
Boland Lake.....	25,000	Mountain Lake.....	50,000
Thunder Bay:		Lak - Francis.....	100,000
Lake Nipigon.....	1,250,000	Sheppard's Lake.....	50,000
Kashabowie Lake.....	25,000	Townsend's Lake.....	50,000
Lake Shebandawin.....	25,000	Black Lake.....	50,000
Lac Des Mille Lacs.....	50,000	Monk Lake.....	50,000
Lake Hellen.....	25,000	Wilcock's Lake.....	50,000
Timiskaming:		Westhol's Lake.....	50,000
Kenogami Lake.....	50,000	Pottawattamie River.....	50,000
Twin Lakes.....	25,000	Twamley's Lake.....	50,000
Free Lake.....	25,000	Grenville:	
Lake Temagami.....	50,000	Burritt's Rapids.....	250,000
Kirkland Lake.....	10,000	Nation River.....	1,000,000
Crystal Lake.....	10,000	Glengarry:	
York:		Lake St. Francis.....	200,000
Lake Simcoe.....	150,000	St. Lawrence River.....	200,000
<i>Pickarel Fry</i>		Haliburton:	
Addington:	Quantity	Bob Lakes.....	50,000
Loon Lake.....	100,000	Davis Lake.....	50,000
Algoma:		Cedar Lake.....	50,000
Desbarats Lake.....	250,000	Devil's Lake.....	50,000
George Lake.....	1,000,000	Duck Lake.....	100,000
Marsh Lake.....	250,000	Dark Lake.....	50,000
Echo Lake.....	18,455,000	Trooper's Lake.....	50,000
Bruce:		Contaws Lake.....	50,000
Shouldice Lake.....	50,000	Hastings:	
Miller Lake.....	50,000	Stoco Lake.....	100,000
Teeswater River.....	50,000	Twin Lake.....	100,000
Cameron Lake.....	50,000	Moir River.....	50,000
Curtise Lake.....	50,000	Moir Lake.....	50,000
Lake Chesley.....	50,000	Salmon River.....	50,000
Pearl Lake.....	50,000	Crivvea Lake.....	50,000
Durham:		Wadsworth Lake.....	50,000
Lake Scugog.....	250,000	Banker Lake.....	100,000
Rice Lake.....	700,000	Lambton:	
		Sydenham River.....	150,000
		Lanark:	
		Dalhousie Lake.....	200,000
		Mississippi Lake.....	100,000
		Black Lake.....	100,000
		Silver Lake.....	100,000
		Clayton Lake.....	100,000
		Christie Lake.....	100,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1925—*Continued*

<i>Pickarel Fry</i>			
	Quantity		Quantity
Manark—Continued			
Mississippi River.....	400,000	Peterborough:	
Patterson Lake.....	100,000	Indian River.....	100,000
Joe's Lake.....	100,000	Ball Lake.....	100,000
Bennett's Lake.....	100,000	Pigeon Lake.....	100,000
		Buckhorn Lake.....	100,000
		Stoney Lake.....	100,000
		Chemong Lake.....	100,000
Seeds:			
Charleston Lake.....	500,000	Rainy River:	
Rideau Lakes.....	400,000	Lake Warsaw.....	1,000,000
Sand Lake.....	200,000		
Opinicon Lake.....	100,000	Renfrew:	
Bass Lake.....	100,000	Muskrat Lake.....	50,000
Lower Beverly Lake.....	100,000	Petawawa River.....	100,000
Crosby Lake.....	100,000	Pough Lake.....	50,000
Newboro Lake.....	100,000	Lake Onago.....	50,000
Middlesex:			
Thames River.....	400,000	Russell:	
Aux Sable River.....	100,000	Castor River.....	50,000
Muskoka:			
Lake Muskoka.....	1,000,000	Simcoe:	
Lake Joseph.....	1,000,000	Lake Couchiching.....	200,000
Lake Rosseau.....	1,000,000	Severn River.....	200,000
Sparrow Lake.....	1,250,000	Edward's River.....	100,000
McCrear's Lake.....	100,000	Wilson's Lake.....	50,000
Gull Lake.....	150,000	Long Lake.....	10,000
Muldrew Lake.....	100,000		
Musquash River.....	100,000	Sudbury:	
Trout Lake.....	100,000	Assey Lake.....	100,000
Chub Lake.....	50,000	Lady McDonald Lake.....	100,000
Devine Lake.....	50,000	McLaren Lake.....	100,000
Garter Snake Lake.....	100,000	Clare Bell Lake.....	100,000
Nipissing:			
Lake Nipissing.....	1,600,000	Thunder Bay:	
Ethier's Lake.....	100,000	Kashabowie Lake.....	1,000,000
Trout Lake.....	100,000	Lake Shebandawin.....	1,000,000
Hogarth Lake.....	100,000	Long Lake.....	500,000
Turtle Lake.....	100,000	Little Long Lake.....	500,000
Northumberland:			
Crow Bay.....	100,000	Timiskaming:	
Trent River.....	200,000	Commanda Lake.....	100,000
Crow River.....	100,000	Hector Lake.....	100,000
Oxford:			
Maplehurst Lake.....	50,000	Cochrane:	
Parry Sound:			
Mill Lake.....	100,000	Minard's Lake.....	100,000
Magnetawan River.....	100,000	Buskegan Lake.....	100,000
Belger Lake.....	100,000	Bob's Lake.....	100,000
Star Lake.....	100,000		
Kashagacogong Lake.....	100,000	Victoria:	
Bay Lake.....	100,000	Sturgeon Lake.....	100,000
Compass Lake.....	100,000	Cameron Lake.....	1,000,000
South Sequin River.....	100,000	Balsam Lake.....	500,000
Prince Edward:			
Smith's Bay.....	200,000	Big Mud Turtle Lake.....	100,000
Consecon Lake.....	200,000	Round Lake.....	100,000
West Lake.....	200,000		
Weller's Bay.....	200,000	Waterloo:	
East Lake.....	200,000	Sunfish Lake.....	50,000
South Bay.....	200,000	Grand River.....	150,000
Wellington:			
		Hamilton Bay.....	200,000
		Wellington:	
		Puslinch Lake.....	50,000
York:			
		Shadowmere Lake.....	100,000
		Bond Lake.....	100,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1925—*Continued*

<i>Whitefish Fry</i>			
Great Lakes:	Quantity	Leeds:	Quantity
Lake Superior.....	21,500,000	Rideau Lakes	50,000
Lake Erie.....	37,550,000	Prince Edward County:	
Lake Ontario.....	60,000,000	Bay of Quinte.....	1,850,000
Algoma:		Rainy River:	
North Channel.....	15,048,000	Bad Vermillion Lake.....	50,000
Prince Edward County:		Rainy Lake.....	1,000,500
Bay of Quinte.....	57,999,500		
Rainy River District:		<i>Parent Bass</i>	
Rainy Lake.....	33,028,000	Rainy River:	
Thunder Bay District:		Rainy Lake.....	240
Lake Nipigon.....	10,000,000	Sudbury:	
Lake Hellen.....	1,000,000	Dog Lake.....	270
		Waterloo:	
<i>Herring Fry</i>		Waterloo Dam.....	101
Great Lakes:		<i>Rainbow Trout Fingerlings</i>	
Lake Erie.....	29,000,000	Sudbury:	
Lake Ontario.....	13,000,000	Onaping River.....	1,000
Lanark:		Fox Lake.....	500
Dalhousie Lake.....	50,000	Post River.....	500
Silver Lake.....	50,000	Wahnapitae River.....	1,000

SUMMARY

Quantity

Parent small-mouthed Black Bass.....	611
Speckled Trout Fry and Fingerlings.....	676,700
Salmon Trout Fry and Fingerlings.....	7,320,425
Pickrel Fry.....	49,015,000
Whitefish Fry.....	246,126,500
Herring Fry.....	45,050,500
Rainbow Trout Fingerlings.....	3,000
Total.....	348,191,736

COMPARATIVE STATEMENT OF DISTRIBUTION

	1923	1924	1925
Small-mouthed Black Bass Fry and Fingerlings.	785,000	338,000	Nil
Parent Small-mouthed Black Bass.....	997	1,111	611
Speckled Trout.....	2,328,800	1,898,500	676,700
Salmon Trout.....	12,410,100	7,801,000	7,320,425
Pickrel.....	36,140,000	80,250,000	49,015,000
Whitefish.....	264,400,000	437,469,000	246,125,500
Herring.....	24,000,000	32,475,000	45,050,500
Rainbow Trout.....	1,100	15,000	3,000
	340,065,997	560,247,611	348,191,736

GAME AND FISHERIES

Return of the Number of Fishermen, Tonnage and Value of Tugs, Vessels and Boats, industry during

	Fishing Material									
	Tugs			Gasoline Launches		Sail or Row Boats		Men Employed	Gill Nets	
	No.	Tonnage	Value	No.	Value	No.	Value		Yards	Value
Kenora and Rainy River Districts.....	4	45	\$ 12,200	122	\$ 55,755	77	\$ 2,960	318	312,874	\$ 46,472
Lake Superior.....	12	297	48,500	48	23,210	73	5,015	272	779,490	70,650
North Channel.....	10	237	44,500	49	28,645	55	3,915	166	220,393	23,760
Georgian Bay.....	24	615	193,500	123	83,965	91	6,438	501	1,350,880	136,938
Lake Huron.....	17	409	97,615	76	38,775	36	2,325	341	840,521	94,411
Lake St. Clair District and St. Clair Rivers.....				51	19,285	94	5,685	146		
Lake Erie, including Upper Niagara River.....	37	1,060	336,500	156	155,690	172	13,790	853	1,532,895	194,128
Lake Ontario, including Lower Niagara and St. Lawrence Rivers.....				335	138,452	295	15,489	1,018	1,677,035	152,712
Inland Waters, including Ottawa River.....	8	175	34,500	58	29,240	193	7,104	648	163,310	23,132
Totals.....	112	2,838	767,315	1,018	573,017	1,086	62,721	4,263	6,877,398	742,203

Recapitulation of the kinds, quantities and

	Herring	Whitefish	Trout	Pike	Pickereel (Dore)	Sturgeon
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Kenora and Rainy River Districts.....		736,969	129,578	730,308	1,454,127	17,028
Lake Superior.....	1,146,638	346,696	1,867,519	12,013	94,370	2,527
North Channel.....	9,372	240,473	469,525	78,220	204,744	9,577
Georgian Bay.....	30,241	1,255,408	1,588,982	118,302	121,442	3,458
Lake Huron.....	202,117	121,524	1,739,468	840	173,897	8,752
Lake St. Clair District and St. Clair Rivers.....	1,200	595		22,115	44,822	14,639
Lake Erie, including Lower Niagara River.....	2,839,625	1,033,077	588	28,700	224,105	41,685
Lake Ontario, including Lower Niagara and St. Lawrence Rivers.....	294,107	1,926,367	1,053,304	191,842	70,982	6,033
Inland Waters, including Ottawa River.....	32,173	1,397,077	466,734	133,985	179,278	141,763
Totals, pounds.....	4,555,473	7,058,186	7,325,698	1,316,325	2,567,767	245,462
Values.....	\$ c. 182,218 92	\$ c. 846,982 32	\$ c. 805,826 78	\$ c. 65,816 25	\$ c. 359,487 38	\$ c. 81,002 46

DEPARTMENT, ONTARIO

the Quantity and Value of all Fishing Materials and other Fixtures Employed in the fishing the year 1925.

Fishing Material												Other fixtures used in fishing				
Seines			Pound Nets		Hoop Nets		Dip or Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves	
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$		\$		\$		\$		\$
.....			60	14,330	56	2,218	.....						107	36,975	73	10,005
.....			51	25,000	.....		.....		3,000	95	.....		14	9,100	20	6,615
.....			127	59,750	17	2,200	.....		7,000	1,200	.....		35	12,430	35	15,375
4	800	1,043	84	76,700	27	640	.....		40,454	5,566	17	66	42	22,025	46	9,400
.....			97	56,650	2	70	.....		13,628	2,339	.....		42	12,620	18	6,100
38	7,658	5,805	229	27,225	1	15	.....		3,800	207	.....		36	11,150	16	4,600
37	12,590	9,700	646	398,850	65	1,371	2	7	4,950	230	.....		109	131,500	53	16,250
11	1,110	890	.....		694	23,814	2	40	20,350	1,430	.....		60	13,150	35	5,280
49	6,610	8,070	40	13,400	333	11,346	39	795	5,425	155	127	960	59	12,310	13	3,192
139	28,768	25,508	1,334	671,905	1,195	41,674	43	842	98,607	11,222	144	1,026	504	261,260	309	76,817

values of fish caught during the year 1925.

Eels	Perch	Tullibee	Catfish	Carp	Mixed and Coarse Fish	Caviare	Pickarel (Blue)	Total Production	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	\$ c.
.....	8,521	460,565	.....	9,600	271,214	679	.....	3,818,589	384,175 54
.....	.....	369	.....	.....	94,448	11	.....	3,564,591	311,356 46
.....	6,573	.....	.....	84	459,250	89	.....	1,477,907	135,459 37
700	4,236	108,789	7,354	43,966	111,845	30	.....	3,394,753	363,235 21
5,600	63,292	320,173	643	2,272	89,228	1,360	.....	2,729,166	267,011 04
.....	66,353	.....	22,894	174,788	327,846	366	.....	675,618	37,942 29
.....	2,060,262	.....	36,746	244,019	1,057,976	816	3,429,930	10,997,529	580,352 59
159,325	90,423	.....	122,414	29,635	382,171	.....	15,380	4,351,983	430,708 80
16,845	31,969	20,900	154,714	310,318	487,987	1,456	.....	3,375,199	348,613 49
182,470	2,331,629	910,796	344,765	814,682	3,281,965	4,807	3,445,310	34,385,335	.....
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
21,896 40	116,581 45	45,539 80	24,133 55	32,587 28	131,278 60	7,691 20	137,812 40	.....	2,858,854 79

A COMPARATIVE STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO

Kind	1924	1925	Increase	Decrease
	lbs.	lbs.	lbs.	lbs.
Herring.....	12,501,333	4,555,473		7,945,860
Whitefish.....	6,691,760	7,058,186	366,426	
Trout.....	6,882,142	7,325,698	443,556	
Pike.....	1,293,336	1,316,325	22,989	
Pickrel (dore).....	2,964,592	2,567,767		396,825
Sturgeon.....	281,155	245,462		35,693
Eels.....	149,743	182,470	32,727	
Perch.....	2,515,832	2,331,629		184,203
Tullibee.....	500,383	910,796	410,413	
Catfish.....	372,861	344,765		28,096
Carp.....	1,112,309	814,682		297,627
Mixed fish.....	3,401,590	3,281,955		119,625
Caviare.....	5,530	4,807		723
Pickrel (blue).....	3,060,098	3,445,310	385,212	
Total.....	41,732,664	34,385,335	(net decrease)	7,347,329

STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO FOR THE YEAR 1925 AS FURNISHED BY THE FISHERMEN'S ANNUAL RETURNS

Kind	Quantity	Price per lb.	Value
	lbs.	\$ c.	\$ c.
Herring.....	4,555,473	04	182,218 92
Whitefish.....	7,058,186	12	846,982 32
Trout.....	7,325,698	11	805,826 78
Pike.....	1,316,325	05	65,816 25
Pickrel (dore).....	2,567,767	14	359,487 38
Sturgeon.....	245,462	33	81,002 46
Eels.....	182,470	12	21,896 40
Perch.....	2,331,629	05	116,581 45
Tullibee.....	910,796	05	45,539 80
Catfish.....	344,765	07	24,133 55
Carp.....	814,682	04	32,587 28
Mixed fish.....	3,281,955	04	131,278 60
Caviare.....	4,807	1 60	7,691 20
Pickrel (blue).....	3,445,310	04	137,812 40
Total.....	34,385,335		2,858,854 79

VALUE OF ONTARIO FISHERIES FOR A PERIOD OF TWENTY YEARS. 1906 TO 1925 INCLUSIVE

Year	Value	Year	Value
	\$ c.		\$ c.
1906.....	1,734,865 00	1916.....	2,658,993 43
1907.....	1,935,024 90	1917.....	2,866,424 00
1908.....	2,100,078 63	1918.....	3,175,110 32
1909.....	2,237,544 41	1919.....	2,721,440 24
1910.....	2,348,269 57	1920.....	2,691,093 74
1911.....	2,419,178 21	1921.....	2,656,775 82
1912.....	2,842,877 09	1922.....	2,807,525 21
1913.....	2,674,686 76	1923.....	2,886,398 76
1914.....	2,755,293 11	1924.....	3,139,279 03
1915.....	3,341,181 41	1925.....	2,858,854 79

STATEMENT OF THE EQUIPMENT AND ITS VALUE, USED IN THE FISHING INDUSTRY OF THE PROVINCE
OF ONTARIO, DURING THE YEAR 1925

	Number	Values
		\$ c.
Tugs (2,838 tons).....	112	767,315 00
Gasoline Boats.....	1,018	573,017 00
Sail or Row Boats.....	1,086	62,721 00
Gill Nets (6,877,398 yards).....	.....	742,203 00
Seine Nets (28,768 yards).....	139	25,508 00
Pound Nets.....	1,334	671,905 00
Hoop Nets.....	1,195	41,674 00
Dip or Roll Nets.....	43	842 00
Baited Hooks.....	98,607	11,222 00
Spears.....	144	1,026 00
Freezers and Ice Houses.....	504	261,260 00
Piers and Wharves.....	309	76,817 00
Number of Men employed in Fishing Industry.....	4,263



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*post. Saillie W
June 18, 1931*

Government
Publications

Twentieth Annual Report

OF THE

GAME AND FISHERIES DEPARTMENT

1926

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO

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TORONTO

Printed and Published by the Printer to the King's Most Excellent Majesty
1927

To His Honour W. D. Ross, Esq.,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Twentieth Annual Report of the Game and Fisheries Department of this Province.

I have the honour to be

Your Honour's most obedient servant,

CHARLES McCREA,

Minister of Mines.

Toronto, 1927.



TWENTIETH ANNUAL REPORT

OF THE

Game and Fisheries Department of Ontario

TO THE HONOURABLE CHARLES MCCREA,
Minister of Mines.

SIR:—I have the honour of placing before you the Twentieth Annual Report of the work of the Game and Fisheries Department for the fiscal year ending on October 31st, 1926.

REVENUE

A net revenue of \$682,063.32 was received, and a total expenditure made of \$399,744.24, leaving a net surplus for the year of \$282,319.08.

In addition to the general expenditures, the administration of the Wolf Bounty Act comes under the Department's control, and bounties and expenses in connection therewith were paid for the year as follows:

Wolf bounties and expenses in connection therewith..... \$51,994 42

COMPARATIVE STATEMENT OF WOLF SKINS RECEIVED AND BOUNTIES PAID

	Timber	Brush	Pups	Total	Bounties
For fiscal year ending October 31st, 1925.....	831	1,066	21	1,918	\$25,465 62
For fiscal year ending October 31st, 1926.....	1,022	2,690	107	3,819	51,994 42

STATISTICS

The statistics accompanying this report will show in detail the kinds, quantities and values of commercial fish, also the varieties, quantities and locations of fry and fingerlings distributed from Provincial Hatcheries, together with other statistics pertaining to the fur trade, as well as other branches of the Department. All of which has been carefully prepared and affords interesting and valuable information.

FISH

The statistics of the commercial fisheries of the Province are shown as follows:—

	1924	1925	1926
Gill nets licensed (yards).....	6,502,736	6,877,398	7,001,130
Seines “	208	139	131
Pound nets “	1,323	1,334	1,306
Hoop nets “	1,256	1,195	1,134
Dip and roll nets licensed.....	70	43	44
Spears licensed.....	126	144	140
Hooks “	78,685	98,607	124,023
Number of men employed.....	4,267	4,263	4,145
Number of tugs.....	103	112	119
Number of gasoline boats.....	975	1,018	1,003
Number of sail or row boats.....	1,177	1,086	1,022
Value of boats, ice-houses, wharves and twine.....	\$2,995,362 00	\$3,235,510 00	\$3,337,737 00
Aggregate catch in pounds.....	41,732,664	34,385,335	32,261,019
Values to fishermen.....	\$3,139,279 03	\$2,858,854 79	\$2,643,686 28

ANGLING

The demand for non-resident angling licenses is increasing yearly, and the revenue received from this source forms no mean part of the total revenue received from the fisheries of the Province. The heavy demand on the game fish may best be shown by a comparison of the revenues received from the sale of non-resident angling licenses as follows:—

	1923	1924	1925	1926
Revenues from Angling Licenses...	\$77,856 75	\$105,862 50	\$128,115 00	\$145,913 50

To cope with the heavy demand made by the anglers for game fish, it will be necessary for the Department to use the existing hatcheries to their utmost capacity, as well as to use every means within its power towards conservation by the prevention of the pollution of waters, and the taking of fish illegally and during the time prohibited by law.

HATCHERIES

Elsewhere in this report will be found in detail the quantities and varieties of fry and fingerlings placed in various waters of the Province from hatcheries located at Mount Pleasant, Glenora, Sault Ste. Marie, Normandale, Port Carling, Port Arthur and Fort Frances, and for comparative purposes with previous years, the following figures show a summary of total distribution:—

	1924	1925	1926
Whitefish Fry.....	437,469,000	246,125,500	260,575,000
Pickarel Fry.....	80,250,000	49,015,000	13,820,000
Salmon Trout Fingerlings and Fry.....	7,801,000	7,320,425	8,501,000
Herring Fry.....	32,475,000	45,050,500	11,225,000
Rainbow Trout Fry and Fingerlings.....	15,000	3,000	1,800
Speckled Trout Fry and Fingerlings.....	1,898,500	676,700	1,085,300
Black Bass Fry and Fingerlings.....	338,000	.....	12,500
Parent Black Bass.....	1,111	611	1,569
Parent Speckled Trout.....	.....	.....	300
	560,247,611	348,191,736	295,222,469

On July 1st, 1926, the Federal Government discontinued the propagation of fish in eight hatcheries located at:—

Collingwood	Sarnia
Wiarton	Southampton
Port Arthur	Kingsville
Kenora	Belleville

The operation of same, however, was continuous, as the Province of Ontario assumed control as soon as operations were discontinued by the Federal Government and after the distribution of fry and fingerlings was made. The collection of speckled trout spawn from the Normandale Creek ponds still continues to be of a satisfactory nature, and the undertaking has been so successful that it is now advisable to have further ponds established, in order that an increased quantity of speckled trout, fry and fingerlings may be distributed throughout the Province; the demand for which far exceeds the present production.

BIOLOGICAL INVESTIGATIONS

The Department of Game and Fisheries receives annually hundreds of applications for fish in various stages of development (fry, fingerlings and adults), and before distribution is made from the Provincial Hatcheries each

application must be considered, on its merits. As it was impossible to make a thorough study during the past two summers of all the waters requested to be restocked, before making recommendations many applications were disposed of on the strength of the information given by the applicants, and also on the basis of a knowledge of existing conditions in the neighbouring waters of the same system.

Limnobiological studies were carried out on twenty-one inland waters during the summer of 1925, and on fifty-eight during the summer of 1926, with a view to determining their possibilities for fish production. The programme of the studies carried out on these waters with certain modifications for streams, included three fairly well-defined, and yet correlated lines of investigation:—

- (1) Fish fauna of the waters and their relative abundance.
- (2) Plankton on which either directly or indirectly fish depend for their food supply was collected from various depths for quantitative and qualitative studies in the laboratory. The quantity and character of the plankton are good indications of the productivity of any body of water. (Observations were made on the available macroscopic food supply, for example, molluscs, crustaceans, insects and insect larvae.)
- (3) A study of the physical and chemical properties of the water.
 - (a) Physical properties, namely, depths, colour, transparency and temperatures.
 - (b) Chemical properties, namely, dissolved gases (oxygen and carbon dioxide), bicarbonate, alkalinity and hydrogen ion concentration.

The above factors determine very largely the abundance of the plankton.

The biology of the fishes of Lake Simcoe was gone into more intensively, and to this end eleven gill-nets, each fifty yards long and five feet deep, and with mesh ranging from one and one-half inches to five inches were employed. By this means data were obtained on the relative abundance, distribution, rate of growth, food and spawning conditions of the various fishes inhabiting the lake. Extensive seine hauls were made over ecologically different areas in order to obtain data on the young fry and minnow population.

By means of an Ekman dredge covering an area of eighty-one square inches the life on the bottom of the lake was collected and preserved. Mr. Donald S. Rawson, B.A. is making a special study of this material in the Department of Biology, University of Toronto.

Determining the suitability of any body of water, in advance of stocking, and in the light of the present day knowledge of the criteria to employ for the purpose, is one means of preventing undue loss in planting fish. However, applicants may render most important service by following the instructions issued with each lot of fish sent to them. The most important points to remember in this regard are—firstly, to plant where the natural food supply is adequate, and secondly, to plant out of the reach of enemies. Instructions are issued to applicants having these two important principles in view. It should be borne in mind that planting points vary according to the life history and habits of the species planted, and the life history and habits of its enemies. By means of propaganda these facts may be driven home to applicants.

By biological surveys, legislation and education, steps are being taken by the Department to preserve the game fish in waters not already depleted for the perpetual use of the public, compatible with changing conditions in nature.

This is the ultimate aim of all our biological endeavours. When waters cannot be reclaimed by native species the policy is to substitute other species more suitable to the existing conditions.

GAME PRESERVES

During the year a number of Crown Game Preserves were established throughout the Province, so that at present there are between five and six million acres of territory set aside in which hunting and trapping is forbidden for the sole purpose of conservation.

The Crown Game Preserve at Eugenia, which is utilized for the purpose of propagating English Ring-necked Pheasants, commenced operations in 1922. Seven hundred and eighty-seven live birds and 33,000 eggs were distributed last year, as compared with 606 birds and 29,460 eggs for the previous year. The demand for settings of pheasant eggs still continues to be in excess of the available supply.

GAME

Big Game continues to be plentiful, and the majority of hunting parties report a successful season. For comparative purposes, the following figures show the number of hunting licenses issued for the past five years:—

	1922	1923	1924	1925	1926
Resident Moose.....	1,584	1,098	1,385	1,291	1,359
Resident Deer.....	20,504	17,677	19,517	17,034	23,392
Non-resident Hunting.	1,256	1,247	1,651	1,581	1,347

In explanation of the increased number of resident deer licenses sold it may be stated that for the first time, farmers in the northern parts of the Province were obliged to pay the sum of \$1.00 for a deer license, whereas heretofore resident farmers in certain districts could secure one deer for their personal use without securing a license.

Ruffed Grouse (Partridge).—The scarcity of these game birds continues and warranted the continued close season, which should be maintained until they become re-established in fair quantities.

Sharp-tailed Grouse or Prairie Hen are confined to the northwestern part of the Province, and are to be found there in considerable numbers.

Quail are mainly confined to the southwestern part of the Province, and in the Counties of Essex and Kent, they are thriving to such an extent that a short open season of three days was permitted.

Pheasants have, for a number of years, been plentiful in the Niagara Peninsula, and an open season for two days for a limited number of male birds was permitted. In other parts of the Province, owing to the general distribution of settings of eggs from the Eugenia Crown Game Preserve, they are reported as becoming well established, particularly in the southeastern part of the Province.

Ducks and Geese were obtained in goodly numbers, and afforded the usual excellent hunting.

FURS

The total number of pelts on which royalty was paid during the year is somewhat lower than for the preceding year, although the value to the trapper is slightly greater.

Beaver show a decided decline, although the drop in the number taken is practically accounted for by the restricted period in which same may be legally taken, and further, they can only be legally trapped by resident Indians.

Otter still continue to be caught in approximately the same numbers over a period of years.

Mink show a slightly smaller catch than for the preceding year.

Fisher are quite plentiful, and the catch for this year is greater than in any period since 1922.

Marten were taken in approximately the same quantity as for the preceding year, although much lower in number than formerly.

Muskrat show a much lower catch than in former years, although it may be accounted for from the fact that weather conditions were not favourable during the open season.

Red Fox have increased rapidly, and the catch for the year exceeds that of any former similar period.

Skunk shows a steady catch for a number of years; the year's catch being slightly in excess of the previous year.

COMPARISON OF PELTS EXPORTED AND TANNED FOR FIVE YEARS

	1922	1923	1924	1925	1926
Beaver.....	93,971	70,684	50,233	48,364	27,597
Otter.....	5,309	3,997	5,096	4,622	4,304
Fisher.....	2,657	2,339	1,910	1,936	2,618
Marten.....	7,327	4,704	3,661	3,125	3,177
Mink.....	78,487	58,634	82,466	68,138	65,299
Muskrat.....	554,888	478,820	533,256	534,739	387,022
Bear.....	2,137	1,447	1,399	2,014	1,635
Fox (Cross).....	469	1,154	1,082	2,801	4,175
Fox (Red).....	11,272	12,329	14,695	22,198	30,535
Fox (Silver or Black).....	87	205	167	433	620
Fox (White).....	1,765	1,501	362	974	226
Fox (not specified).....	170	34	28	61	165
Lynx.....	836	1,177	2,332	2,200	3,884
Raccoon.....	20,344	15,752	21,976	22,157	21,002
Skunk.....	73,219	54,770	58,130	67,100	75,503
Weasel.....	94,399	61,603	51,163	34,365	63,599
Wolverine.....	6	20	12	8	11
Total.....	947,343	769,070	827,948	814,935	691,372

To be added to the above are 1,367 ranch-raised fox pelts which were tanned or exported without payment of royalty, under the terms of Fur Farmers' Licenses.

The value of pelts, as shown in the above list, to the trapper, is \$3,391,012.69, which places this Province far in the lead in the production of fur-bearing animals.

FUR FARMING

Fur farming still continues to receive a great deal of attention from the public, and while formerly it was largely confined to fox farming, inquiries are now being received concerning the possibilities of farming every species of fur-bearing animals native to the Province.

Realizing that it is the duty of the Province to conserve our fur-bearing animals from depletion or extinction as it is to preserve any other natural resource, the Department has recently undertaken to conduct an Experimental Fur Ranch in the vicinity of Balsam Lake, where it is aimed to furnish the public with economical methods by which the various species can be raised

profitably and produce good fur; to develop by selective breeding improved strains of promising species; and to investigate diseases and parasites for the purpose of determining methods of prevention and treatment.

The production of fur-bearing animals in captivity is comparatively a recent enterprise, and is, therefore, not supported by the exhaustive experimental and research data enjoyed by similar industries.

	1923	1924	1925	1926
Fur Farmers' Licenses issued.....	284	392	624	783

Animals stocked on licensed farms:—

	1923	1924	1925	1926
Beaver.....	2	10	29	100
Fisher.....	6	6	2	28
Fox (Cross).....	361	386	459	397
Fox (Red).....	323	347	725	397
Fox (Silver Black).....	2,171	3,006	4,940	7,095
Fox (Blue).....	....	....	40	49
Lynx.....	2	2	2	3
Mink.....	73	97	136	468
Muskrat.....	163	2,904	7,182	....
Opossum.....	....	....	....	....
Raccoon.....	130	149	306	290
Skunk.....	46	136	100	49
Bear.....	....	11	13	4
Marten.....	....	....	2	7
Total.....	3,277	7,056	13,936	*8,887

*Exclusive of Muskrat.

ENFORCEMENT OF THE ACT

The district wardens and officers in the outside service have enforced the provisions of the Act and the Regulations to the best of their ability, and during the year seasonal overseers have been engaged for the better protection of fish during the spawning period and for the protection of big game during the hunting season.

SUMMARY OF CONVICTIONS AND FINES

Convictions reported.....	588
Fines collected.....	\$11,563.00

A great many articles were confiscated during the year, including:—

1,483 Pelts	38 Spears	4 Motor cars
34 Deer and Moose hides	84 Rods and lines	17 Jack-lights and lanterns
5 Live animals	488 Traps	27 Deer
6,791 Pounds fish	145 Fire-arms	40 Pounds venison
506 Pieces gill nets	5 Gasoline boats	7 Moose
23 Dip nets	6 Row boats	28 Pounds Moose meat
17 Hoop nets	4 Canoes	54 Partridge
14 Seine nets	1 Steam tug	35 Ducks
3 Roll nets	7 Punts	4 Pheasants
6 Trap nets	2 Trucks	81 Decoys

All confiscations are sold at advertised sales by tender, other than such articles as are sold by the Department to the former owner, when circumstances warrant.

ACKNOWLEDGMENTS

In conclusion, I desire to publicly express my appreciation for the assistance and support rendered to the Department throughout the year, not only for the loyalty of the staff of both the inside and outside service but for the assistance of the transportation companies and the Fish and Game Protective Associations, whose officials and employees assisted our officers in the performance of their duties.

All statistics referred to will be found elsewhere in this report, together with many other statistics in detail.

All of which is respectfully submitted.

I am, Sir,

Your obedient servant,

D. McDONALD,
Deputy Minister of Game and Fisheries.

REVENUE RECEIVED BY DEPARTMENT OF GAME AND FISHERIES
DURING YEAR ENDING OCTOBER 31st, 1926

Royalty, Game.....	\$131,092 99
Trappers' Licenses.....	42,464 55
Non-resident Licenses.....	61,614 50
Deer Licenses.....	59,548 60
Moose Licenses.....	7,435 50
Gun Licenses.....	3,423 00
Fur Dealers' Licenses.....	50,044 25
Fur Farmers' Licenses.....	4,031 25
Tanners' Licenses.....	220 00
Game Dealers' Licenses.....	521 50
Hotel and Restaurant Licenses, etc.....	390 00
Cold Storage Licenses.....	165 00
Guides' Licenses.....	3,298 00
Fines, Game and Fish.....	11,786 51
Sales, Game.....	5,913 85
Commissions.....	2,001 80
Commercial Fishing Licenses.....	130,205 00
Royalty, Fish.....	20,327 67
Angling Licenses.....	146,312 00
Court Costs.....	1,455 64
Sales, Fish.....	6,770 37
Rentals.....	3,260 00
Miscellaneous.....	15,812 30
Total.....	\$708,094 28

WATERS STOCKED WITH QUANTITIES AND KINDS OF
FISH PLANTED IN 1926

<i>Speckled Trout Fry and Fingerlings</i>		Bruce:		Quantity
Addington:	Quantity	Gagnon's Creek.....		2,000
Little Creek.....	2,000	Smith's Creek.....		2,000
		Sanger Creek.....		2,000
		Matheson Creek.....		2,000
Algoma:				
Long Lake.....	3,000	Durham:		
Johnson Lake.....	3,000	Cavan Creek.....		2,000
Kerr's Lake.....	3,000	Tyrone Creek.....		800
Moose Lake.....	3,000	Decker Hollow.....		2,000
Agawa River.....	3,000	Manver's Creek.....		2,000
Mongoose Lake.....	3,000	Dick William's Creek.....		2,000
Hobon Lake.....	3,000	Mount Pleasant Creek.....		2,000
Alva Lake.....	3,000	Britain Creek.....		2,000
Hawk Lake.....	3,000	Haydon Stream.....		200
Cheppewa River.....	6,000	Wilson's Creek.....		6,000
Sand Lake and Creek.....	6,000	Moon's Creek.....		2,000
Deer Lake.....	3,000	Pigeon Creek and Tributary...		6,000
Carpenter Lake.....	3,000	Mountjoy's Creeks.....		2,200
Wartz Lake.....	3,000	Steven's Creek and Tributaries		800
Lily Lake.....	3,000	Bees Creek.....		2,000
Magpie River.....	3,000	Bell Hill Stream.....		2,000
Bear Creek.....	6,000	Power Stream.....		2,000
Silver Lake.....	3,000	McKindley's Creek.....		2,000
Lower Lake.....	3,000	Leskard Creek.....		4,000
Mountain Lake.....	3,000	Lifford Creek.....		2,000
Stony Portage.....	3,000	Millbrook Creek.....		4,000
		Mashwood's Creek.....		2,000
Brant:		Brimacombe Creek.....		2,000
Blue Lake Creek.....	2,500	Pasture Creek.....		4,000
Lawrason's Creek.....	2,500	McMillen's Creek.....		2,000
Barker's Creek.....	2,000	Brand's Creek.....		2,000
		Crossland's Stream.....		2,000
Bruce:		Elizabethville Creek.....		2,000
Thomson's Creek.....	2,000	Sowden's Creek.....		2,000
Wolf Creek.....	2,000	DeLong Creek.....		2,000
Plum Creek.....	2,000	Perrytown Creek.....		2,000
Colpoys Creek.....	2,000			

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1926—*Continued*

<i>Speckled Trout Fry and Fingerlings</i>					Quantity
Durham—Continued		Quantity		Haliburton:	
Caldwell's Creek.....	2,000		Ross Lake.....	2,000	
Patterson's Creek.....	2,000		Boskung Lake.....	2,000	
Thurtle Creek.....	2,000		Bill's Creek.....	4,000	
Solina Creek.....	2,000		Cardiff Creek.....	4,000	
Park Stream.....	2,000		Gull Creek.....	4,000	
Puttie Creek.....	2,000		Fish Lake.....	2,000	
Muldrew Creek.....	2,000		Pocket Creek.....	2,000	
Harten's Creek.....	2,000		Rattling Creek.....	2,000	
Lockie's Creek.....	2,000		Mountain Creek.....	2,000	
Harris Creek.....	3,000		Bare Creek.....	2,000	
Bickle Creek.....	2,000		Bark Lake.....	2,000	
Taylor Creek.....	2,000		Mink Lake.....	2,000	
Cody's Creek.....	2,000				
Janetville Pond.....	2,000		Halton:		
Tenth Line Creek.....	2,000		Limehouse Pond.....	2,000	
Vance Spring Creek.....	2,000		Sixteen Mile Creek.....	2,000	
Mercer's Pond.....	2,000		Twelve Mile Creek.....	2,000	
Generaska River.....	2,000				
			Hastings:		
Dufferin:			Deer River.....	2,000	
Esson's Creek.....	4,000		Rawdon Creek.....	4,000	
Funston's River.....	2,000		Spring Creek.....	2,000	
Cress River.....	2,000		Mayhew's Creek.....	2,000	
Rooker Creek.....	2,000		Spring Brook Creek.....	2,000	
Pine River.....	2,000		Allen Creek.....	2,000	
Rookery Creek.....	2,000				
Bayne River.....	2,000		Kenora:		
Boyne River.....	2,000		Hodge Lake.....	5,000	
Brown's River.....	4,000				
Mono Creek.....	2,000		Lambton:		
			Hungry Hollow Creek.....	2,500	
Elgin:					
Stanley Spring Creek.....	2,000		Lanark:		
Silver Brook.....	2,000		Paul's Creek.....	2,000	
			Allan's Brook.....	2,000	
Frontenac:			Grant's Creek.....	2,000	
Trout Lake Creek.....	4,000		Gibb's Creek.....	2,000	
Clear Lake Creek.....	4,000				
Cataqua Creek.....	2,000		Lincoln:		
Creek near Mountain Grove...	2,000		Unnamed Creek.....	2,500	
Sharbot Lake Creek.....	2,000				
			Middlesex:		
Grey:			Duncraef's Creek.....	2,000	
Saugeen River.....	14,000		River Wye.....	2,500	
Rocky Saugeen River.....	2,000		Medway Creek.....	2,000	
Beaver River and Tributaries..	6,000		McFarland Creek.....	2,500	
Sydenham Creek.....	2,000				
Park's Lake.....	1,000		Muskoka:		
Sydenham River.....	4,000		Muskoka River.....	6,000	
Silver Creek.....	2,000		White Lake.....	2,000	
Camp's Creek.....	2,000		Menominee Lake.....	2,000	
Bell's Creek.....	2,000		Pages Lake.....	2,000	
Tobermory Lake.....	2,000		Rat Lake.....	2,000	
New England Creek.....	2,000		Deep Lake.....	1,000	
Maple Creek.....	2,000				
Swinton Park Creek.....	2,000		Norfolk:		
Meadow Creek.....	2,000		Patterson's Creek.....	2,000	
Salem Creek.....	2,000		South Stream.....	2,000	
Peter Black's Creek.....	2,000		Derelict Creek.....	2,000	
Palmer Pond.....	2,000				
			Northumberland:		
Huron:			Woodland Creek.....	2,000	
Big Creek.....	2,500		Allen's Creek.....	2,000	
Johnston's Creek.....	2,500		Trout Creek.....	4,000	
Taylor's Creek.....	2,500		Baltimore Creek.....	2,000	
David Bell Creek.....	2,500		Bogg's Farm Creek.....	2,000	
Duke's Creek.....	2,000				

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1926—*Continued*

<i>Speckled Trout Fry and Fingerlings</i>		Quantity
<i>Northumberland—Continued</i>		
Halfway Creek.....	2,000	
Cold Creek.....	2,000	
Dartford Creek.....	2,000	
Summit Creek.....	2,000	
Gunter's Creek.....	2,000	
Cole Creek.....	4,000	
Hopkin's Creek.....	2,000	
Burnley Stream.....	2,000	
Russ Creek.....	2,000	
Phillips Creek.....	2,000	
Shelter Valley Creek.....	2,000	
Dawson Creek.....	2,000	
Forestell's Creek.....	2,000	
Staples Creek.....	2,000	
Glenburnie Creek.....	2,000	
Mile Valley Creek.....	2,000	
Livingstone Creek.....	2,000	
Eastwood Creek.....	2,000	
Ball's Creek.....	2,000	
Spring Creek.....	2,000	
Colton Creek.....	2,000	
Buckley Creek.....	2,000	
Hefferone Creek.....	2,000	
Dempsey Creek.....	2,000	
Ruttan's Creek.....	2,000	
<i>Ontario:</i>		
Beaver River.....	2,000	
Black Creek.....	4,000	
Johnston's Creek.....	2,000	
Duffin's Creek.....	2,000	
Smalley's Creek.....	2,000	
Beaverbrook Creek.....	2,000	
<i>Oxford:</i>		
Waterworks Pond.....	1,000	
Dower Creek.....	2,000	
Unnamed Stream.....	400	
Wright's Creek.....	2,000	
Whiting Creek.....	2,000	
Brooksdales Stream.....	2,000	
Five Points Creek.....	2,000	
Youngeville Creek.....	2,000	
Outlet Stream.....	2,000	
<i>Parry Sound District:</i>		
Magnetawan River.....	2,500	
Sugar Lake Creek.....	1,000	
Distress Creek.....	1,000	
Sword's Creek.....	1,000	
South River.....	2,500	
Barton's Creek.....	1,000	
Diamond Lake Creek.....	1,000	
Wolf Creek.....	1,000	
<i>Prince Edward:</i>		
Waring's Creek.....	3,000	
<i>Peterborough:</i>		
Plato Creek.....	2,000	
Sedgwick's Creek.....	2,000	
Buchanan's Creek.....	2,000	
<i>Peel:</i>		<i>Quantity</i>
Montgomery Creek.....	2,000	
Credit River and Tributaries..	22,000	
Genor's Creek.....	2,000	
Cold Creek.....	2,000	
Humber River and Tributary..	5,000	
<i>Renfrew:</i>		
Schutt's Creek.....	2,000	
Brindle's Creek.....	2,000	
Brennan's Creek.....	2,000	
Gultz Creek.....	2,000	
Burwell Creek.....	2,000	
Coughlin Creek.....	2,000	
Kitt's Creek.....	2,000	
Hurd's Creek.....	2,000	
McGregor Creek.....	2,000	
Lougheed Creek.....	2,000	
Crozier Creek.....	2,000	
Cormac Creek.....	2,000	
<i>Simcoe:</i>		
Mad River.....	2,000	
Pine River.....	4,000	
Coldwater River.....	2,000	
Copeland's Creek.....	2,000	
Sturgeon River.....	6,000	
Noisy River.....	2,000	
Nottawasaga River.....	7,000	
Batteau Creek.....	2,000	
Pretty Rivers.....	2,000	
Black Ash Creek.....	2,000	
Avon River.....	2,000	
Hart Creek.....	2,000	
Bear Creek.....	4,000	
Bruff's Creek.....	2,000	
Maple Valley Creek.....	2,000	
Jobbit's Creek.....	2,000	
Lisle Creek.....	2,000	
Mill Creek.....	2,000	
Hog Creek.....	2,000	
Kelley's Creek.....	2,000	
<i>Sudbury:</i>		
Ella Lake.....	3,000	
Bass Lake.....	3,000	
Bertrand's Creek.....	3,000	
Rapid River.....	3,000	
Burnt Creek.....	3,000	
Veuve Creek.....	3,000	
Devil's Lake.....	3,000	
Lake Penage.....	3,000	
Whitefish Creek.....	3,000	
Meatbird Creek.....	3,000	
<i>Thunder Bay:</i>		
Allen Lake.....	5,000	
Long Lake.....	5,000	
Moose Lake.....	5,000	
McKenzie River.....	5,000	
Lake Wideman.....	5,000	
Upper Twin Lake.....	5,000	
Silver Lake.....	10,000	
McIntyre Creek.....	5,000	
Corbett's Creek.....	5,000	
Current River.....	5,000	
McVicar's Creek.....	5,000	
Neebing River.....	5,000	

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1926—*Continued*

<i>Speckled Trout Fry and Fingerlings</i>		<i>Salmon Trout Fry and Fingerlings</i>	
Thunder Bay—Continued		Great Lakes:	Quantity
Oliver Lake.....	5,000	Lake Ontario.....	600,000
Brulu Creek.....	5,000	Lake Superior.....	2,246,000
Steel River.....	20,000	North Channel.....	950,000
Nipigon River.....	149,400	Lake Huron.....	250,000
Stewart Lake.....	5,000		
Fraser Creek.....	10,000	Addington:	
Gravel River.....	10,000	L'oon Lake.....	30,000
Blend Lake.....	5,000	Bass Lake.....	15,000
Castle Lake.....	5,000	Sharbot Lake.....	25,000
Deception Lake.....	5,000	Little Weslemkoom Lake.....	15,000
Sunset Lake.....	5,000	Rock Lake.....	15,000
McKenzie Lake.....	5,000	White Lake.....	15,000
Clegg Lake.....	5,000	Spring Lake.....	15,000
Schreiber Lake.....	10,000		
Sweetwater Creek.....	5,000	Algoma:	
Savignys Creek.....	5,000	Trout Lake.....	30,000
Mirror Lake.....	5,000	Long Lake.....	25,000
Crystal Lake.....	5,000	Sand Lake.....	15,000
Beck Creek.....	5,000	Island Lake.....	25,000
Lake Ada.....	5,000	Keichel Lake.....	15,000
Tenier Lake.....	5,000	Oba Lake.....	15,000
Blend River.....	5,000	Lonely Lake.....	15,000
Anderson Lake.....	5,000	Granary Lake.....	25,000
		Canoe Lake.....	15,000
Timiskaming:		Achigan Lake.....	15,000
Moffatt Creek.....	3,000	Lake Anjigami.....	15,000
Blanche River.....	3,000		
Cheque Creek.....	3,000	Frontenac:	
Unnamed Creek.....	3,000	Crow Lake.....	15,000
Hudson Creek.....	3,000	Trout Lake.....	15,000
Pine Creek.....	3,000	Wolf Lake.....	15,000
		Grindstone Lake.....	15,000
Waterloo:		Brule Lake.....	15,000
Erbville Creek.....	2,000	Bay Lake.....	15,000
Reist's Creek.....	2,000		
Jantzi's Creek.....	4,000	Haliburton:	
Cressman Dam.....	2,000	Drag Lake.....	15,000
Bamberg Creek.....	2,000	Spruce Lake.....	15,000
Canagagigue Stream.....	2,000	Gull Lake.....	15,000
Mickus Creek.....	4,000	Davis Lake.....	15,000
Miller Creek.....	4,000	Farquar Lake.....	15,000
Lautenslaeger Creek.....	2,000	Mountain Lake.....	15,000
Schwindt's Creek.....	6,000	Hollow Lake.....	15,000
Forster Creek.....	2,000	Kuskog Lake.....	15,000
Betzner Cook Creek.....	2,000	Lake of Islands.....	15,000
Wilino Creek.....	2,000	Clear Lake.....	15,000
St. Jacob's Creek.....	2,000	Long Lake.....	15,000
Cedar Creek.....	2,000	Bear Lake.....	15,000
Cressman Creek.....	2,000	Horn Lake.....	15,000
		Maple Lake.....	15,000
Wentworth:		Lipsey Lake.....	15,000
Martin's Creek.....	2,000	Stragle Lake.....	15,000
Binkley Creek.....	2,000	Kashagahnigemong Lake.....	15,000
		Paudash Lake.....	15,000
Wellington:			
Cox Creek.....	2,500	Hastings:	
Herd's Creek.....	2,000	Papineau Lake.....	25,000
		Eagle Lake.....	15,000
York:		Lake of Islands.....	15,000
Black River.....	2,000	Salmon Lake.....	15,000
		Dickie's Lake.....	15,000
		Coppeway Lake.....	15,000
		Clear Lake.....	30,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1926—*Continued*

<i>Salmon Trout Fry and Fingerlings</i>		<i>Parry Sound—Continued</i>		Quantity
Kenora:	Quantity	Isabella Lake.....		15,000
Lake Wabigoon.....	25,000	Otter Lake.....		15,000
Beaver Lake.....	25,000	Camp Lake.....		15,000
Lake of the Woods.....	100,000	Lake of Many Islands.....		15,000
Eagle Lake.....	50,000			
Lanark:		Prince Edward:		
Silver Lake.....	15,000	Smith's Bay.....		50,000
Otty Lake.....	15,000			
Christie Lake.....	25,000	Peterborough:		
Robinson's Lake.....	15,000	Stoney Lake.....		10,000
Pike Lake.....	15,000	Belmont Lake.....		15,000
		Eel's Lake.....		15,000
Leeds:		Tallan's Lake.....		15,000
Charleston Lake.....	100,000	Loon Lake.....		15,000
Rideau Lakes.....	150,000			
Killenback Lake.....	15,000	Rainy River:		
		Baril Lake.....		25,000
Muskoka:		Crystal Lake.....		25,000
Lake Muskoka.....	40,000			
Lake Joseph.....	150,000	Renfrew:		
Lake of Bays.....	250,000	Clear Lake.....		15,000
Lake Vernon.....	40,000	Mink Lake.....		15,000
Fairy Lake.....	40,000	Barry's Bay.....		15,000
Mary Lake.....	40,000	Long Lake.....		15,000
Peninsular Lake.....	25,000	Carson's Lake.....		15,000
Lake Rosseau.....	150,000	Albert Lake.....		15,000
Gull Lake.....	15,000	Birchem Lake.....		15,000
Clear Lake.....	15,000	Haley's Lake.....		15,000
Clearwater Lake.....	15,000	Moore Lake.....		15,000
Long Lake.....	30,000			
Koshee Lake.....	15,000	Simcoe:		
Red Chalk Lake.....	15,000	Edward's Lake.....		5,000
Jingo Lake.....	5,000			
Skeleton Lake.....	15,000	Sudbury:		
Doty's Lake.....	15,000	Trout Lake.....		15,000
Menominee Lake.....	15,000	Big Pagamasing Lake.....		25,000
Page's Lake.....	15,000	Wahnapiatae Lake.....		15,000
Echo Lake.....	15,000			
Devine Lake.....	15,000	Thunder Bay:		
Oneida Lake.....	5,000	Trout Lake.....		20,000
Eighteen Mile Lake.....	15,000	Lake Nipigon.....		500,000
		Kashabowie Lake.....		25,000
Nipissing:		Lake Shebandawan.....		25,000
Cache Lake.....	15,000	Keemle Lake.....		20,000
Trout Lake.....	15,000	Lac des Mille Lacs.....		50,000
Turtle Lake.....	15,000	Lake Helen.....		25,000
Talon Lake.....	15,000	Rapsey Lake.....		15,000
Murray Lake.....	15,000	Cloud Lake.....		15,000
		Unnamed Lake.....		15,000
Ontario:		D'Arcy Lake.....		20,000
Lake St. John.....	10,000	Surprise Lake.....		10,000
		Loftquist Lake.....		15,000
Parry Sound:				
Deer Lake.....	15,000	Timiskaming:		
Mill Lake.....	15,000	Twin Lakes.....		15,000
Ahmic Lake.....	15,000	Lake Timagami.....		15,000
Sugar Lake.....	15,000	Crystal Lake.....		15,000
Spring Lake.....	15,000	Wilson Lake.....		15,000
Maple Lake.....	30,000	Miller Lake.....		15,000
Martin's Lake.....	15,000	Larder Lake.....		15,000
Pike Lake.....	15,000	Nellie Lake.....		15,000
Eagle Lake.....	30,000			
Duck Lake.....	15,000	York:		
Ruthe Lake.....	5,000	Lake Simcoe.....		565,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1926—*Continued*

<i>Pickereel Fry</i>	Quantity	Muskoka:	Quantity
Addington:		Lake Rosseau.....	500,000
South Beaver Lake.....	100,000	Sparrow Lake.....	100,000
		Three Mile Lake.....	100,000
		Muldrew Lake.....	100,000
Carleton:		Long Lake.....	100,000
Ottawa River.....	100,000	Koshee Lake.....	100,000
		Loon Lake.....	100,000
Durham:		Rose Lake.....	100,000
Rice Lake.....	500,000		
Frontenac:		Nipissing:	
Eagle Lake.....	50,000	Lake Nipissing.....	300,000
Crow Lake.....	50,000	Ethier's Lake.....	200,000
Loughborough Lake.....	250,000	Trout Lake.....	200,000
Bob's Lake.....	50,000	Hogarth Lake.....	200,000
Bass Lake.....	100,000	Turtle Lake.....	200,000
Wolf Lake.....	100,000		
Crotch Lake.....	100,000	Northumberland:	
Beaver Lake.....	200,000	Trent River.....	300,000
Bay Lake.....	50,000		
Glengarry:		Parry Sound:	
St. Lawrence River.....	100,000	Long Lake.....	100,000
		Mill Lake.....	100,000
Haliburton:		Magnetawan River.....	200,000
Deer Lake.....	100,000	Ahmic Lake.....	100,000
Clear Lake.....	100,000	Pickereel River.....	100,000
Rock Lake.....	100,000	Cecebe Lake.....	100,000
Little Gull Lake.....	100,000	Ruthe Lake.....	150,000
Pine Lake.....	100,000	Blackstone Lake.....	200,000
Marsh Lake.....	100,000	Whitstone Lake.....	100,000
Cardiff Lake.....	100,000	Poole Lake.....	100,000
Butt Lake.....	100,000	Lake Bain.....	100,000
Dennies Lake.....	100,000	Wilson's Lake.....	100,000
Long Lake.....	50,000		
Hastings:		Prince Edward:	
Moirs River.....	100,000	Roblin's Lake.....	100,000
Baptiste Lake.....	200,000	Smith's Bay.....	100,000
Moirs Lake.....	300,000	Consecon Lake.....	100,000
Salmon River.....	100,000	East Lake.....	100,000
Wadsworth Lake.....	100,000		
Castleman Lake.....	100,000	Peterborough:	
		Eel's Lake.....	100,000
Kenora:		Alder Lake.....	100,000
Beaver Lake.....	100,000		
Long Pine Lake.....	100,000	Perth:	
		Maitland River.....	70,000
Lanark:			
Dalhousie Lake.....	100,000	Renfrew:	
Mississippi Lake.....	300,000	Hurds Lake.....	100,000
Black Lake.....	100,000	Norway Lake.....	100,000
Otty Lake.....	100,000	Muskrat Lake.....	100,000
Clyde River.....	100,000	Barry's Bay.....	50,000
Mississippi River.....	500,000	Green Lake.....	100,000
Patterson Lake.....	100,000	Long Lake.....	50,000
Joe's Lake.....	200,000	Chat's Lake.....	100,000
Bennett's Lake.....	100,000		
Kerr's Lake.....	100,000	Simcoe:	
Karr's Lake.....	100,000	Severn River.....	1,000,000
Baycroft Lake.....	100,000	Edward's Lake.....	50,000
		Hendrie Lake.....	50,000
Leeds:			
Charleston Lake.....	250,000	Sudbury:	
Higley Lake.....	100,000	Apsey Lake.....	100,000
Lamb's Pond.....	50,000	McLaren Lake.....	200,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1926—*Continued*

<i>Pickarel Fry</i>		<i>Dufferin:</i>		Quantity
Timiskaming:	Quantity	Mono Centre Lake.....		500
Lake Sesekinika.....	100,000	Nipissing:		
Commando Lake.....	50,000	Cache Lake.....		500
Hector Lake.....	50,000	Norfolk:		
Minard's Lake.....	50,000	Little Lake.....		500
Buskegau Lake.....	50,000	Peterborough:		
Fairy Lake.....	100,000	Pigeon Lake.....		500
Dore Lake.....	50,000	Victoria:		
Victoria:		Sturgeon Lake.....		500
Four Mile Lake.....	200,000	Pigeon Lake.....		500
Pigeon River.....	100,000	Waterloo:		
Waterloo:		Waterloo Dam.....		500
Grand River.....	200,000	Grand River.....		1,500
Great Lakes:		Paradise Lake.....		500
Lake Ontario (Dead Man's Bay)	50,000	New Dundas Dam.....		500
		Long Lake.....		500
		Wentworth:		
<i>Whitefish Fry</i>		Hamilton Bay.....		500
Great Lakes:		Wellington:		
Lake Superior.....	10,440,000	Puslinch Lake.....		1,000
Lake Erie.....	81,970,000	York:		
Lake Ontario.....	50,000,000	Lake Simcoe.....		500
Prince Edward:		Shadow Lake.....		500
Bay of Quinte.....	90,500,000			
Rainy River:		<i>Parent Bass</i>		
Rainy Lake.....	17,265,000	Algoma:		
Thunder Bay:		Lake Missinabie.....		1,000
Lake Nipigon.....	10,400,000	Rainy River:		
		Rainy Lake.....		292
<i>Herring Fry</i>		Sudbury:		
Great Lakes:		Crooked Lake.....		277
Lake Erie.....	5,725,000			
Lake Ontario.....	5,500,000	<i>Parent Trout</i>		
<i>Bass Fry and Fingerlings</i>		Thunder Bay:		
Algoma:		Nipigon River.....		300
Second Lake.....	1,000			
Brant:		<i>Rainbow Trout Fingerlings</i>		
Nith River.....	500	Sudbury:		
Pinehurst Lake.....	500	Rapid River.....		600
Carleton:		Wahnapiatae River.....		600
Ottawa River.....	500	Spanish River.....		600
Rideau River.....	1,000			

SUMMARY, 1926

	Quantity
Small-mouthed Black Bass Fry and Fingerlings.....	12,500
Speckled Trout Fry and Fingerlings.....	1,085,300
Salmon Trout Fry.....	8,501,000
Pickarel Fry.....	13,820,000
Whitefish Fry.....	260,575,000
Herring Fry.....	11,225,000
Rainbow Trout Fingerlings.....	1,800
Parent Speckled Trout.....	300
Parent Bass.....	1,569
Total.....	295,222,469

COMPARATIVE STATEMENT OF DISTRIBUTION

	1924	1925	1926
Small-mouthed Black Bass Fry and Fingerlings.....	338,000	.....	12,500
Speckled Trout Fry and Fingerlings.....	1,898,500	676,700	1,085,300
Salmon Trout Fry.....	7,801,000	7,320,425	8,501,000
Pickarel Fry.....	80,250,000	49,015,000	13,820,000
Whitefish Fry.....	437,469,000	246,125,500	260,575,000
Herring Fry.....	32,475,000	45,050,500	11,225,000
Rainbow Trout Fingerlings.....	15,000	3,000	1,800
Parent Speckled Trout.....	.....	.....	300
Parent Bass.....	1,111	611	1,569
	560,247,611	348,191,736	295,222,469

GAME AND FISHERIES

Return of the Number of Fishermen, Tonnage and Value of Tugs, Vessels and Boats, industry during

	Fishing Material									
	No. of Men	Tugs			Gasoline Launches		Sail and Row Boats		Gill Nets	
		No.	Ton- nage	Value	No.	Value	No.	Value	Yards	Value
				\$		\$		\$		\$
Kenora and Rainy River Districts.	320	5	87	13,700	139	69,890	78	3,252	283,150	50,777
Lake Superior.....	286	15	350	58,300	48	25,375	58	4,930	927,506	84,487
North Channel (Lake Huron).....	201	10	245	56,795	42	27,975	64	3,960	278,353	32,850
Georgian Bay (Lake Huron).....	513	24	569	182,000	127	98,805	93	5,410	1,293,410	136,857
Lake Huron Proper.....	307	18	436	140,505	76	42,610	45	2,895	717,750	109,365
Lake St. Clair, River St. Clair and Detroit River.....	142	....	.....	.....	45	16,400	81	4,275	.....	.....
Lake Erie, including Upper Niagara River.....	800	37	1,043	316,000	149	147,960	155	11,800	1,652,296	198,177
Lake Ontario, including Lower Niagara and St. Lawrence Rivers	906	....	.....	.....	329	134,805	253	13,421	1,531,650	138,881
Inland waters, including Ottawa River.....	670	10	214	40,500	48	22,125	195	12,308	317,015	34,446
Totals.....	4,145	119	2,944	807,800	1,003	585,945	1,022	62,251	7,001,130	785,840

Recapitulation of the kinds, quantities and

	Herring	Whitefish	Trout	Pike	Pickarel (Blue)	Pickarel (Dore)
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
Kenora and Rainy River Districts.	.....	671,407	143,818	838,734	2,700	1,409,195
Lake Superior	1,818,531	317,024	1,966,007	5,807	350	95,712
North Channel (Lake Huron)	11,653	238,268	743,909	62,932	.....	135,021
Georgian Bay (Lake Huron)	91,834	1,126,787	1,482,257	92,506	47,449	41,110
Lake Huron (proper)	247,292	155,351	1,441,194	1,276	300	127,772
Lake St. Clair, River St. Clair and Detroit River	2,136	1,275	.....	24,930	4,975	55,231
Lake Erie, including Upper Niagara River	1,573,093	868,137	446	19,603	2,975,121	192,501
Lake Ontario, including Lower Niagara and St. Lawrence Rivers	638,168	1,822,444	784,333	159,041	7,443	61,793
Inland Waters, including Ottawa River	29,466	1,204,159	350,761	90,657	210	188,847
Total pounds	4,412,173	6,404,852	6,912,725	1,295,486	3,038,548	2,307,182
Values	\$ c. 176,486 92	\$ c. 768,582 24	\$ c. 760,399 75	\$ c. 64,774 30	\$ c. 121,541 92	\$ c. 323,005 48

DEPARTMENT, ONTARIO

Quantity and Value of all Fishing Materials and other Fixtures Employed in the fishing year 1926

Fishing Material												Other fixtures used in fishing				Total Value	
Seine Nets			Pound Nets		Hoop Nets		Dip and Roll Ncts		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves		
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.		Value
		\$		\$		\$		\$		\$		\$		\$		\$	
.....	.....	.....	59	16,925	62	3,390	.....	.....	.....	.....	.....	.....	114	35,820	85	11,520	205,274
.....	.....	.....	49	24,775	.....	.....	.....	.....	2,502	305	.....	.....	18	8,260	19	6,350	212,782
.....	.....	.....	130	63,100	10	500	.....	.....	14,000	3,800	.....	.....	43	16,255	38	22,500	227,735
4	700	497	85	70,270	33	931	.....	.....	43,459	5,394	19	79	36	34,545	39	18,835	553,623
.....	.....	.....	94	53,300	.....	.....	.....	.....	28,322	6,226	.....	.....	42	13,735	20	36,215	404,851
.....
.....	6,645	5,885	217	25,650	.....	.....	.....	.....	5,300	561	.....	.....	34	12,075	20	4,925	69,771
.....	12,800	10,450	641	354,300	53	1,251	1	2	4,375	150	.....	.....	98	121,035	55	19,100	1,180,225
5	445	470	.....	.....	699	21,570	4	385	19,175	1,517	.....	.....	66	13,485	43	5,041	329,575
.....	5,562	7,716	31	13,000	277	6,044	39	186	6,890	186	121	911	61	12,860	21	3,619	153,901
.....	26,152	25,018	1,306	621,320	1,134	33,686	44	573	124,023	18,139	140	990	512	268,070	340	128,105	3,337,737

Values of fish caught during the year 1926.

Salmon	Eels	Perch	Tullibee	Catfish	Carp	Mixed Coarse	Caviare	Total Production	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	\$ c.
18,484	.....	12,373	558,904	.....	5,972	366,890	1,028	4,029,505	386,943 67
1,025	.....	300	28	.....	.....	105,917	.....	4,310,701	345,340 25
10,408	.....	19,773	560	.....	2,308	375,575	4	1,600,411	152,510 82
4,126	.....	4,088	181,974	4,852	41,468	127,829	59	3,246,339	332,085 33
7,760	.....	90,858	447,485	1,589	3,629	111,213	572	2,636,291	240,127 08
16,389	.....	88,926	.....	52,846	197,421	242,396	523	687,048	41,399 65
49,569	410	1,715,919	.....	26,186	196,787	1,132,282	1,817	8,751,871	474,190 25
7,021	122,859	113,201	.....	139,976	43,191	327,411	20	4,226,901	394,771 88
59,417	26,691	22,270	8,120	103,638	251,327	435,118	1,271	2,771,952	276,317 35
174,199	149,960	2,067,708	1,197,071	329,087	742,103	3,224,631	5,294	32,261,019	.....
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
7,485 67	17,995 20	103,385 40	59,853 55	23,036 09	29,684 12	128,985 24	8,470 40	.....	2,643,686 28

COMPARATIVE STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO

Kind	1925	1926	Increase	Decrease
	lbs.	lbs.	lbs.	lbs.
Herring.....	4,555,473	4,412,173	.....	143,300
Whitefish.....	7,058,186	6,404,852	.....	653,334
Trout.....	7,325,698	6,912,725	.....	412,973
Pike.....	1,316,325	1,295,486	.....	20,839
Blue Pickerel.....	3,445,310	3,038,548	.....	406,762
Pickerel Dore.....	2,567,767	2,307,182	.....	260,585
Sturgeon.....	245,462	174,199	.....	71,263
Eels.....	182,470	149,960	.....	32,510
Perch.....	2,331,629	2,067,708	.....	263,921
Tullibee.....	910,796	1,197,071	286,275	.....
Catfish.....	344,765	329,087	.....	15,678
Carp.....	814,682	742,103	.....	72,579
Mixed Fish.....	3,281,965	3,224,631	.....	57,334
Caviare.....	4,807	5,294	487	.....
Total.....	34,385,335	32,261,019	(net decrease)	2,124,316

STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO FOR THE YEAR 1926 AS FURNISHED BY THE FISHERMEN'S ANNUAL RETURNS

Kind	Quantity	Price per lb.	Value
	lbs.	\$ c.	\$ c.
Herring.....	4,412,173	04	176,486 92
Whitefish.....	6,404,852	12	768,582 24
Trout.....	6,912,725	11	760,399 75
Pike.....	1,295,486	05	64,774 30
Blue Pickerel.....	3,038,548	04	121,541 92
Pickerel Dore.....	2,307,182	14	323,005 48
Sturgeon.....	174,199	33	57,485 67
Eels.....	149,960	12	17,995 20
Perch.....	2,067,708	05	103,385 40
Tullibee.....	1,197,071	05	59,853 55
Catfish.....	329,087	07	23,036 09
Carp.....	742,103	04	29,684 12
Coarse Fish.....	3,224,631	04	128,985 24
Caviare.....	5,294	1 60	8,470 40
Total.....	32,261,019	....	\$2,643,686 28

VALUE OF ONTARIO FISHERIES FOR A PERIOD OF TWENTY YEARS, 1907 TO 1926, INCLUSIVE

Year	Value	Year	Value
	\$ c.		\$ c.
1907.....	1,935,024 90	1917.....	2,866,424 00
1908.....	2,100,078 63	1918.....	3,175,110 32
1909.....	2,237,544 41	1919.....	2,721,440 24
1910.....	2,348,269 57	1920.....	2,691,093 74
1911.....	2,419,178 21	1921.....	2,656,775 82
1912.....	2,842,877 09	1922.....	2,807,525 21
1913.....	2,674,686 76	1923.....	2,886,398 76
1914.....	2,755,293 11	1924.....	3,139,279 03
1915.....	3,341,181 41	1925.....	2,858,854 79
1916.....	2,658,993 43	1926.....	2,643,686 28

STATEMENT OF THE EQUIPMENT AND ITS VALUE, USED IN THE FISHING INDUSTRY OF THE PROVINCE OF ONTARIO, DURING THE YEAR 1926

	Number	Values
		\$ c.
Tugs (2,944 tons).....	119	807,800 00
Gasoline boats.....	1,003	585,945 00
Sail or Row Boats.....	1,022	62,251 00
Gill nets (7,001,130 yards).....	.....	785,840 00
Seine Nets (26,152 yards).....	131	25,018 00
Pound Nets.....	1,306	621,320 00
Hoop Nets.....	1,134	33,686 00
Dip Nets.....	44	573 00
Baited Hooks.....	124,023	18,139 00
Spears.....	140	990 00
Freezers and Ice Houses.....	512	268,070 00
Piers and Wharves.....	340	128,105 00
Men Employed.....	4,145
Total Value of Equipment.....		\$3,337,737 00



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Jas. H. Hallie Jr

June 18, 1931

Twenty-First Annual Report

OF THE

GAME AND FISHERIES DEPARTMENT

1927

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO

Printed and Published by the Printer to the King's Most Excellent Majesty
1928

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DEPARTMENT**

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TORONTO

Printed and Published by the Printer to the King's Most Excellent Majesty
1928

TO HIS HONOUR W. D. ROSS, ESQ.,
Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Twenty-first Annual Report of the Game and Fisheries Department of this Province.

I have the honour to be

Your Honour's most obedient servant,

CHARLES MCCREA,
Minister of Mines.

Toronto, 1928.

TWENTY-FIRST ANNUAL REPORT

OF THE

Game and Fisheries Department of Ontario

TO THE HONOURABLE CHARLES MCCREA,
Minister of Mines.

SIR:—I have the honour of placing before you the Twenty-first Annual Report of the work of the Game and Fisheries Department for the fiscal year ending on October 31st, 1927.

REVENUE

A net revenue of \$721,576.25 was received and the total expenditure made of \$492,472.88, leaving a net surplus for the year of \$229,103.37.

COMPARATIVE STATEMENT OF REVENUE AND EXPENDITURE, 1923-1927 INCLUSIVE, AS SHOWN
BY THE PUBLIC ACCOUNTS

	Revenue	Expenditure	Surplus
1923.....	\$621,148 08	\$391,422 19	\$229,725 89
1924.....	667,227 96	336,826 96	330,401 00
1925.....	709,455 73	354,736 09	354,719 64
1926.....	682,063 32	399,744 24	282,319 08
1927.....	721,576 25	492,472 88	229,103 37

It will be noted that both the revenue and the expenditure increased over those of the previous year, although the increase in revenue was not proportionate compared with the increase in expenditure, resulting in a somewhat diminished surplus in 1927.

STATISTICS

The statistical tables accompanying this report show in detail the kinds, quantities and values of game fish, also the varieties and quantities of fry and fingerlings raised in the Provincial Hatcheries and the locations of the waters in which these fry and fingerlings were distributed. In addition, there will be found statistics pertaining to the fur trade as well as other branches of the Department's work. These figures have been very carefully prepared and afford interesting and valuable information.

FISH

The statistics of the commercial fisheries of the Province are in accordance with the following table:—

	1925	1926	1927
Gill nets licensed (yards).....	6,877,398	7,001,130	7,172,456
Seines “	139	131	144
Pound nets “	1,334	1,306	1,224
Hoop nets “	1,195	1,134	959
Dip and roll nets licensed.....	43	44	47
Spears licensed.....	144	140	123
Hooks “	98,607	124,023	100,632

	1925	1926	1927
Number of men employed.....	4,263	4,145	4,156
Number of tugs.....	112	119	118
Number of gasoline boats.....	1,018	1,003	1,006
Number of sail or row boats.....	1,086	1,022	1,040
Value of boats, ice-houses, wharves and twine.....	\$3,235,510 00	\$3,337,737 00	\$3,257,190 00
Aggregate catch in pounds.....	34,385,335	32,261,019	34,896,975
Values to fishermen.....	\$2,858,854 79	\$2,643,686 28	\$3,229,143 57

A perusal of the detailed Revenue Statement published elsewhere in this report will reveal the fact that during 1927 the revenue derived from angling licenses was in excess of that obtained from the commercial fishermen in license fees and royalties, which was chiefly due to the substantially increased revenue secured under the issue of angling licenses. The following statement of revenues derived from the sale of angling licenses during the years 1924 to 1927 inclusive will be of interest.

	1924	1925	1926	1927
Revenues from angling licenses	\$105,862 50	\$128,115 00	\$145,913 50	\$172,327 25

HATCHERIES

As has been stated elsewhere, accompanying this report will be found statistical tables showing in detail the quantities and varieties of fry and fingerling deposited in the various waters of the Province from the Department's hatcheries located at Mount Pleasant, Glenora, Sault Ste. Marie, Normandale, Port Carling, Port Arthur, Fort Frances, Collingwood, Wiarton, Kenora, Sarnia, Southampton, Kingsville and Belleville and for comparative purposes, the following figures show a summary of total distribution for the past three years.

	1925	1926	1927
Maskinonge Fry and Fingerlings.....	.....	.....	68,000
Whitefish Fry.....	246,125,500	260,575,000	448,789,750
Pickeral Fry.....	49,015,000	13,820,000	223,945,000
Salmon Trout Fry and Fingerlings.....	7,320,425	8,501,000	21,465,375
Herring Fry.....	45,050,500	11,225,000	18,410,000
Rainbow Trout Fry and Fingerlings.....	3,000	1,800	.....
Speckled Trout Fry and Fingerlings.....	676,700	1,085,300	1,444,050
Black Bass Fingerlings.....	.....	12,500	5,425
Parent Black Bass.....	611	1,569	.....
Parent Speckled Trout.....	.....	300	606
	348,191,736	295,222,469	714,128,206

BIOLOGICAL INVESTIGATIONS

During the summer of 1927, biological surveys were carried out on two hundred and thirty-three (233) lakes and streams in the province, and, to date of writing, biological data have been accumulated from a total of three hundred and twelve (312) waters.

The purpose of these studies is to determine the species of fish best suited to the waters and to make such recommendations for restocking as will assist in using them to their best possible advantage.

We estimate the numbers of fish to be planted, after coordinating the following data:—

- Biological, physical and chemical characters of the waters.
- The size of fish planted.
- Area of the water.
- The extent of fishing. This is not an arbitrary estimate, but one based on the recent findings of scientific investigators.

The recommendations for the waters investigated during the current year as regards species were as follows: Speckled trout, 66; lake trout, 24; brown trout, 3; small-mouth black bass, 80; large-mouth black bass, 12; pickerel, 2; pike, 2; maskinonge, 1; number of waters considered unsuitable for game fish, 46; number of waters closed, 6. In some cases, two species of fish have been suggested for the same waters and this accounts for the apparent discrepancy in the total number of waters investigated.



Fig. 1.—A series of whitefish (*Coregonus clupeaformis*-Mitchill) specimens—age, one year—reared at Glenora Hatchery. Actual lengths vary from $2\frac{1}{2}$ inches to $3\frac{1}{16}$ inches.

Biological studies were continued on Lake Simcoe at convenient intervals during the summer. A special study of the cause of carp mortality in the lake was undertaken. In this regard the Fish Culture Branch worked in cooperation with the Department of Public Health Laboratories and some interesting results have been obtained. Experimental work is still in progress.

Biological studies of the Thames watershed were commenced and plans are being made to continue the work more intensively next year.

A study of the probable destruction of lake trout spawn by ling was carried out on Silver Lake, South Sherbrooke, Lanark County. Following is a quotation from a report submitted on this subject:—

"A string of gill nets was set at various places in the lake to determine the spawning grounds of the trout. When these were found, nets were set over and in the vicinity of them throughout the period. Other settings at various places in the lake were made to determine the movements, if any, of the fish during this time.

The results of the settings would seem to show that the order of abundance of the fish in this lake is as follows: Lake trout, pike, suckers, ling, rock bass. However, the lake trout figures were obtained when they were on the spawning grounds. Approximately eighty per cent. (80%) of the trout caught was liberated carefully and in good condition at the time of lifting.

"Sixteen ling in all were obtained from fourteen gill net settings, as compared with 77 trout, 36 pike, 30 suckers, 13 black bass. It would appear, therefore, that the ling are not far in excess of the other fish in this lake.

"A careful analysis of the stomach contents of these ling revealed no fish eggs of any kind. However, it did show that eighty-five (85%) per cent. of the stomach contents of the ling consisted of fish and fish remains; of which thirty-four per cent. (34%) of the identifiable material was ciscoes. Thus, they compete with the lake trout for food. Of the remainder of the stomach contents, fourteen per cent. (14%) consisted of one of the varieties of whitefish food.

"Analyses of ling stomachs from several other points in Ontario have also been made—thirty-eight in all—twenty-six of which came from Lake Nipigon. The summary of these would indicate that approximately ninety per cent. (90%) of the stomach contents was of fish origin. A large percentage of this was ciscoes. Many cisco eggs were present, liberated in the digestive processes, probably from the ciscoes eaten. The only other eggs found were, three whitefish eggs.

"Because of the few specimens caught in Silver Lake, it is suggested that an effort be made to secure more specimens of ling during the spawning period of 1928, in order that a more complete report may be made."

Investigations were conducted on the Scugog River below Lindsay; the Thames River below Chatham; Sydenham River below Wallaceburg and Sixteen-mile Creek below Milton, as a result of specific complaints in regard to objectionable stream pollution. Corrective measures were suggested in order to control the various trade wastes entering the waters in question.

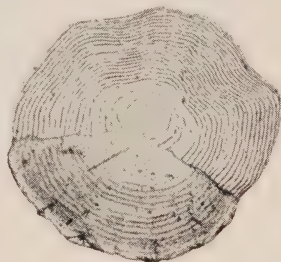


Fig. 2.—Scale taken from whitefish (*Coregonus clupeaformis* Mitchill), reared at Glenora Hatchery. Age, one year. One winter band indicated.

Investigations were made on that portion of Newboro Lake known as "The Bog," and recommendations made in regard to setting it aside as a Game and Fish Preserve.

The muskrat situation, along the Severn River, was studied and it was recommended that a constant water level be maintained, by allowing more water to escape at periods of high water and less during periods of drought.

Outstanding work in fish culture was carried on with whitefish and maskinonge. The manager of the Glenora Hatchery, after much persistent endeavour and experimentation with artificial feeding, has succeeded in rearing whitefish in the hatchery up to three years of age. Some first year specimens



Fig. 3.—Whitefish (*Coregonus clupeaformis*-Mitchill) specimens reared at Glenora Hatchery. Age, two years.
Lengths of specimens, 5 inches to $6\frac{1}{16}$ inches.

measured from $2\frac{1}{2}$ to $3\frac{1}{8}$ inches. (Fig. 1.) A specimen which had attained its second year measured $6\frac{9}{16}$ inches. (Fig. 3.) Photographs of scales show the rate of growth of these specimens. (Figs. 2 and 4.) Preliminary experimental work was carried out in regard to the artificial hatching of maskinonge. A portable hatchery was located on the Pigeon River, near Omemee, and the results were most promising and instructive. The hatch amounted to 70,000 fry. This hatch was obtained from three females and nine males.

Bass propagation during the past year was disappointing. Thorough enquiry has been made in regard to bass culture in virtually every state that has a bass hatchery in the United States, and a review of the statistics accumulated convinces us that the pond culture of bass cannot of itself improve the bass situation in our provincial waters. The pond culture of bass is most uncertain.



Fig. 4.—Scale showing two winter bands taken from whitefish (*Coregonus clupeaformis*-Mitchill), reared at Glenora Hatchery. Age, two years.

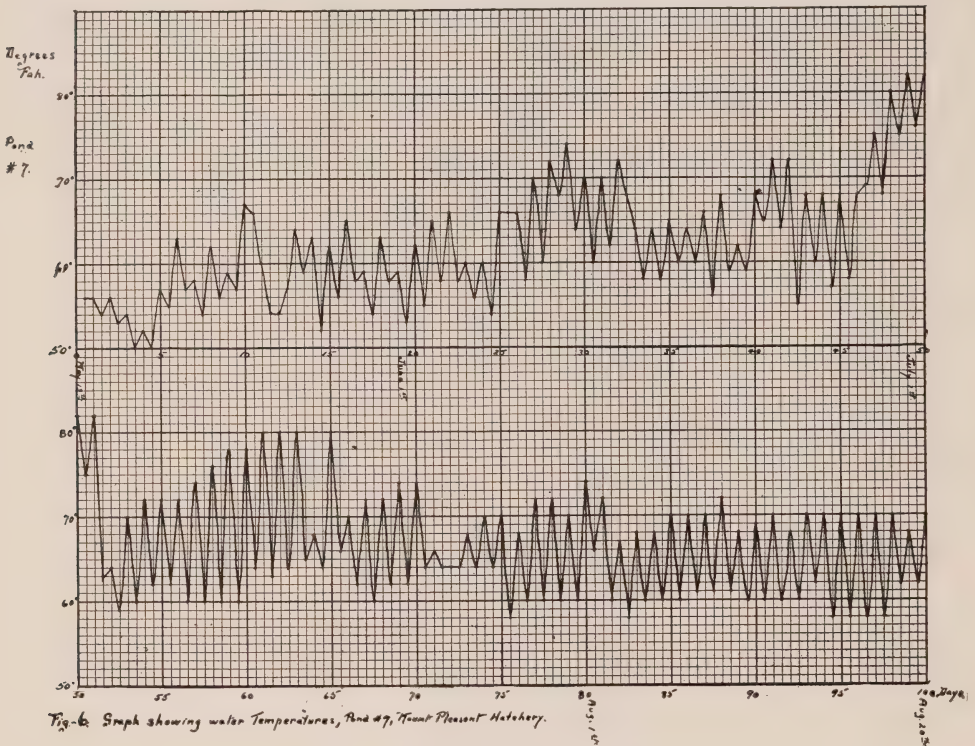
The chief drawback is that black bass do not permit of artificial culture like the trouts, and, after constructing ponds, building nests for the bass, etc., the output, annually, is not large enough to meet a small fraction of the demand for small-mouth black bass. The output is interfered with on account of cannibalism among the bass, changing temperatures—which sometimes are so variable during spawning season as to cause a total loss—and the lack of proper food staples. A graph showing a representative series of temperatures, taken at 8 a.m. and 6 p.m. from bass pond No. 7, Mount Pleasant Hatchery, is included in the report. The graph (Fig. 6) illustrates the fluctuating temperatures which during the spawning season are such as to prove disastrous in bass culture. Before this report went to press, experimental work with bass was resumed at Mount Pleasant for 1928, and it was found that closing off the water supplying the individual ponds at 6 p.m. and turning it on at 9 a.m. the following morning if the sun was shining and if the weather continued mild and warm reduced temperature fluctuations very considerably.



Fig. 5.—Speckled trout (*Salvelinus fontinalis*-Mitchill) successfully introduced during the summer of 1926 as fry into Sequin River, near Edginton (Parry Sound District). Specimen collected July 30, 1927.
Length, 5½ inches.

Now, the question is: "What can be done to improve the bass fishing in waters satisfactory for the species?" We do not wish to discredit hatchery practice with bass, but we are convinced that it cannot alone satisfy the demand nor save the situation, since the output from year to year is relatively small and cannot be relied on definitely. However, conserving the bass supply of our lakes and streams may be brought about in the following ways:

(1) By setting apart natural spawning areas. The success of this method is said to be well established in the State of Minnesota, United States.



(2) By setting aside lakes in certain districts for propagation purposes. The efficacy of this method was tried out by the Department in Long Lake in 1903. Four hundred and sixty adult bass were introduced into the lake and it was closed for a period of years. This has been responsible for the natural restocking of the Lake of the Woods and the restocking of other lakes in the district. Fox Lake, also, in Kenora District, was stocked with fingerlings in 1913 and 1915 and the success of this was phenomenal. This lake has been used solely for propagation purposes and supplies bass to other lakes in the district. A number of lakes have been studied since in order to determine their suitability for bass propagation.

(3) By protecting the bass during their spawning period. The Department is convinced that the validity of the law which prohibits fishing for bass before July 1st, should show itself in no uncertain fashion in a few years. The closed season may be extended, in certain waters, when scientific evidence demonstrates the necessity of such a step. The only argument which will be instrumental in

changing the views of those opposed to this law will be the practical one of the increase of bass and, consequently, good fishing.

(4) By further restricting the bag limit.

Artificial culture of speckled trout is progressing favourably. The total number of shipments of fish in various stages of development for the year was six hundred and ninety-eight, and of these there were two hundred and ninety-one shipments of speckled trout. At the headwaters of Normandale Creek the Department maintains a series of ponds, covering a total area of approximately twelve acres. During the past year speckled trout measuring five inches in length were distributed to public waters from this hatchery. The hatcheries at

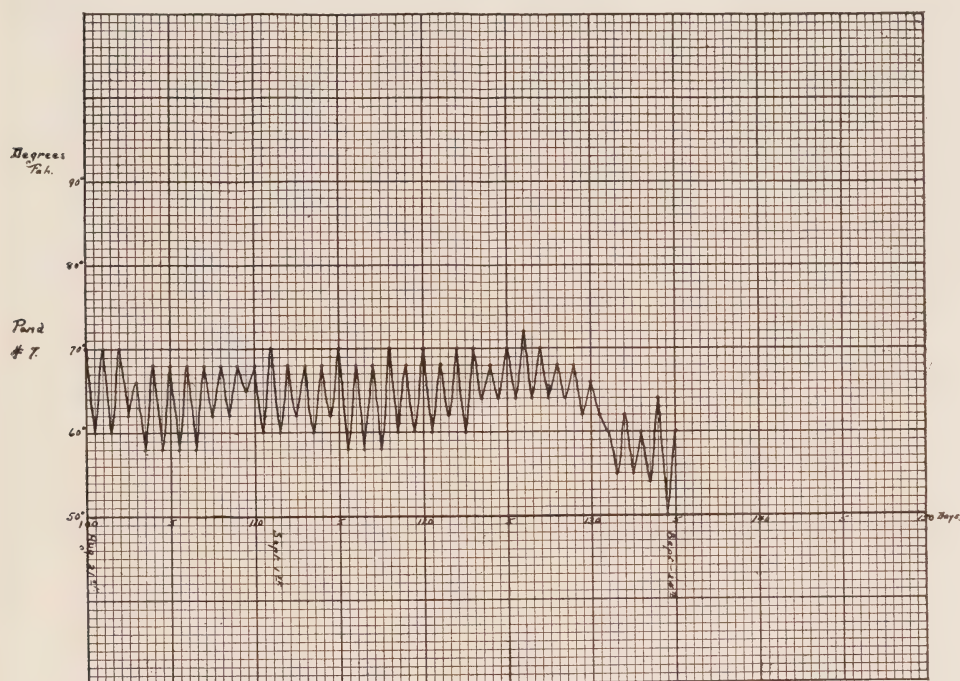


Fig. 6 (Continued). Graph showing water temperatures, Pond #7, Mount Pleasant Hatchery.

Mount Pleasant, Sault Ste. Marie, Wiarton and Southampton, were successful in propagating fingerlings up to three inches in length. On the whole the class of fish planted was good. Sixty-nine per cent. of the speckled trout planted could be classed as fingerlings of various grades. Complaints registered against the class of fish planted were negligible. Speckled trout plantings made in certain waters for the first time are being carefully followed up in order to try to estimate the number of possible survivors.

Three graduates in honour biology of the University of Toronto, assisted the Department's biologist during the summer months. Dr. G. I. Hoover, a graduate in chemistry, University of Toronto and Cambridge, England, also assisted with field work during the summer.

CROWN GAME PRESERVES

During the past year the Department continued to develop its system of Crown Game Preserves and the following table will show the Crown Game Preserves now established, with their locations and areas.

Preserve	County or District	Area (acres)
Bobcaygeon Game Preserve.....	Victoria and Peterborough.....	1,700
Boyd Game Preserve.....	York.....	300
Chapleau Game Preserve.....	Algoma and Sudbury.....	1,824,000
Chippewa Game Preserve.....	Thunder Bay.....	2,728
Conroy Marsh Game Preserve.....	Renfrew.....	3,300
Dumfries Game Preserve.....	Waterloo and Brant.....	25,000
Dundas Marsh Game Preserve.....	Wentworth.....	2,750
Darlington Game Preserve.....	Durham.....	298
Eden Game Preserve.....	Wellington.....	1,470
Eugenia Game Preserve.....	Grey.....	5,200
Falcon Game Preserve.....	Kenora.....	15,000
Glendale Game Preserve.....	Wentworth.....	450
Gloucester Game Preserve.....	Carleton.....	200
Hiawatha Game Preserve.....	Algoma.....	160
Hope Game Preserve.....	Durham.....	1,920
Huron Game Preserve.....	Huron.....	1,000
Innisfree Game Preserve.....	Simcoe.....	4,000
Iroquois Game Preserve.....	Manitoulin.....	150
Loch Garry Game Preserve.....	Glengarry.....	6,400
Longford Game Preserve.....	Victoria.....	43,726
Marmora Game Preserve.....	Hastings.....	10,300
Masonville Game Preserve.....	Middlesex.....	6,500
Meadowvale Game Preserve.....	Peel.....	200
Miner Game Preserve.....	Essex.....	1,280
Midland Game Preserve.....	Simcoe.....	1,500
Nopiming Game Preserve.....	Renfrew and Carleton.....	1,540
Nottawasaga Game Preserve.....	Simcoe.....	1,200
Peasemash Game Preserve.....	Grey.....	300
Peel Game Preserve.....	Peel.....	2,225
Puslinch Game Preserve.....	Wellington.....	704
Pickering Game Preserve.....	Ontario.....	5,060
Richmond Game Preserve.....	Parry Sound.....	56
Southwold Game Preserve.....	Elgin.....	200
Sudbury Game Preserve.....	Sudbury.....	15,300
Superior Game Preserve.....	Thunder Bay.....	575,000
Silver Lake Game Preserve.....	Norfolk.....	3,100
Township 82 Game Preserve.....	Sudbury.....	5,760
Wilder Lake Game Preserve.....	Grey.....	371
York Game Preserve.....	York.....	115,000
Total.....		2,685,348

GAME

Big game. The majority of hunters reported a successful season. For comparative purposes, the following figures show the number of hunting licenses issued for the past six years.

	1922	1923	1924	1925	1926	1927
Resident Moose.....	1,584	1,098	1,385	1,291	1,359	1,379
Resident Deer.....	20,504	17,677	19,517	17,034	23,392	21,111
Non-resident Hunting.....	1,256	1,247	1,651	1,581	1,698	2,237

Ruffed Grouse (Partridge).—The scarcity of these game birds warranted the close season and until this species becomes re-established in fair quantities, a continuance of this close season is desired.

Sharp-tailed Grouse (Prairie Hen).—This species is confined to the north-western portion of the province and they are found there in considerable numbers.

Quail.—These birds are mainly confined to the south-western portion of the province, chiefly in the Counties of Essex and Kent where their numbers are increasing.

Ducks were obtained in goodly numbers and the hunting of these birds was a source of satisfaction to large numbers of sportsmen.

Pheasants (English Ring-neck).—These birds are reported to be on the increase in various sections of eastern Ontario and especially in the Niagara Peninsula. The propagation of pheasants has been carried on by the Department since 1922 at the Bird Farm located on the Eugenia Crown Game Preserve, and last year from this Bird Farm the Department distributed 981 live birds and 26,280 eggs. The demand for settings of pheasant eggs continues in excess of the supply we have for distribution.

FURS

The total number of pelts on which royalty was paid during the year was somewhat in excess of that of the previous year, although general conditions respecting fur-bearing animals do not show any noticeable improvement.

Bear.—While the catch decreased, this species would appear to be holding its own.

Beaver show a further decline in spite of the restrictions which have been placed on the trapping of these animals.

Fisher would appear to be quite plentiful; this species apparently being one of the few which are increasing in number.

Fox.—The different varieties of this species, namely, cross, red and silver and black, would appear to be on the decline.

Lynx.—Conditions would indicate that this is another animal which is on the increase.

Marten would appear to be about the same, the numbers remaining practically stationary.

Mink.—The catch of 1927 shows a considerable decrease and the decline of these animals is evident.

Muskrat.—While the succeeding table would show an increased catch last year, the catch is not a true indication of conditions and this is another species on the decrease.

Otter.—Conditions would seem to indicate quite a decline in these animals.

Raccoon.—The diminished catch is an indication of the declining numbers of these animals.

Skunk.—The catch shows quite a decrease compared with that of the previous year, although the numbers of these animals would appear to be about the same.

COMPARISON OF PELTS, OTHER THAN RANCH-RAISED, EXPORTED AND TANNED FOR SIX YEARS

	1922	1923	1924	1925	1926	1927
Bear.....	2,137	1,447	1,399	2,014	1,635	1,472
Beaver.....	93,971	70,684	50,233	48,364	27,597	20,738
Fisher.....	2,657	2,339	1,910	1,936	2,618	3,904
Fox (Cross).....	469	1,154	1,082	2,801	4,175	3,502
Fox (Red).....	11,272	12,329	14,695	22,198	30,535	26,112
Fox (Silver or Black).....	87	205	167	433	620	403
Fox (White).....	1,765	1,501	362	974	226	977
Fox (not specified).....	170	34	28	61	165	136
Lynx.....	836	1,177	2,332	2,200	3,884	4,568
Marten.....	7,327	4,704	3,661	3,125	3,177	3,261
Mink.....	78,487	58,634	82,466	68,138	65,299	37,628
Muskrat.....	554,888	478,820	533,256	534,739	387,022	469,947
Otter.....	5,309	3,997	5,096	4,622	4,304	3,168
Raccoon.....	20,344	15,752	21,976	22,157	21,002	15,958
Skunk.....	73,219	54,770	58,130	67,100	75,503	59,488
Weasel.....	94,399	61,603	51,163	34,365	63,599	72,645
Wolverine.....	6	20	12	8	11	15
Total.....	947,343	769,070	827,948	814,935	691,372	723,922

The value of the pelts as shown in the above list, to the trapper, is \$3,559,697.23, which places this province as a producer of fur, as compared with the other provinces of the Dominion, in the lead by fully \$1,000,000.

To be added to the above are 2,432 ranch-raised fox pelts of which 2,027 were exported and 405 tanned in the province, and which pelts, under the terms of Fur Farmers' Licenses, are exempt from the payment of royalty.

FUR FARMING

Fur farming still continues to receive a great deal of attention from the public and while formerly it was largely confined to fox farming, numerous inquiries are now being received concerning possibilities of raising, in captivity, other species of fur-bearing animals, particularly muskrat and beaver. In view of the inquiries which have been made, and in order to be in a position to properly advise prospective fur farmers, the Department established an Experimental Fur Farm at Balsam Lake in the County of Victoria, and the first bulletin arising out of the work being carried on at this Experimental Fur Farm under the heading of "Practical Observations on the Fox and Proven Treatises of Common Ailments" is now being published, and when the same is available for distribution, a copy will be forwarded, free of charge, to all the licensed fur farmers in the province.

	1923	1924	1925	1926	1927
Fur Farmers' Licenses issued.....	284	392	624	783	986

ANIMALS STOCKED ON LICENSED FARMS AT DECEMBER 31ST

	1924	1925	1926	1927
Beaver.....	10	29	100	142
Fisher.....	6	2	28	48
Fox (Cross).....	386	459	397	444
Fox (Red).....	347	725	397	314
Fox (Silver Black).....	3,006	4,940	7,095	9,664
Fox (Blue).....	....	40	49	56
Lynx.....	2	2	3	2
Mink.....	97	136	468	826
Muskrat.....	2,904	7,182	....	1,107
Opossum.....	....	....	....	....

	1924	1925	1926	1927
Raccoon.....	149	306	290	619
Skunk.....	136	100	49	91
Bear.....	11	13	4	7
Marten.....	....	2	7	21
Weasel (Ermine).....	....	....	....	4
Total.....	7,056	13,936	*8,887	†13,345

*Exclusive of Muskrat.
†Includes only pen-raised muskrats.

WOLF BOUNTIES

The number of applications for wolf bounty increased to a very great extent over the previous year. Fur buyers found that there was a great demand for wolf fur for trimming, thus increasing the price of the wolf pelt, which, added to the bounty, would bring to the trapper in many instances \$30 or \$40. The use of the snare has also been a great assistance to the trapper. A diagram of how to make a snare can be procured from the Department.

There were received during the past year, applications for wolf bounty for 5,514 wolf skins, being an increase over the previous year of 1,695 wolf skins. Most of these applications, upon examination, were found to be in accordance with the Wolf Bounty Act, and the bounty paid. In some instances, however, the skins accompanying the application were found to be those of dog, fox or animal other than a wolf and the application for bounty was in consequence refused.

COMPARATIVE STATEMENT OF WOLF SKINS RECEIVED AND BOUNTIES PAID

	Timber	Brush	Pups	Total	Bounties
For fiscal year ending October 31st, 1925...	831	1,066	21	1,918	\$25,465 62
For fiscal year ending October 31st, 1926...	1,022	2,690	107	3,819	51,994 42
For fiscal year ending October 31st, 1927...	1,041	4,414	59	5,514	82,970 07

ENFORCEMENT OF THE ACT

The enforcement of the provisions and regulations of the Ontario Game and Fisheries Act under the various district wardens and local overseers has been performed in a very satisfactory manner, and these officers received capable assistance during the spring and fall seasons by the seasonal overseers who were appointed at these periods for the better protection of fish and game.

SUMMARY OF CONVICTIONS AND FINES

Convictions reported.....	723
Fines collected.....	\$9,635 41

A great many articles were confiscated during the year, including:—

2,354 Pelts	2,340 Hooks	6 Motor Cars
47 Deer and moose hides	4 Grapples	21 Jack-lights and lanterns
110 Live animals	2 Gaffs	29 Deer
5,711 Pounds fish	55 Spears	310 Pounds venison
207 Pieces gill nets	102 Rods and lines	240 Pounds moose meat
7,485 Yards gill nets	763 Traps	40 Partridge
20 Dip nets	246 Fire-arms	6 Ducks
10 Hoop nets	11 Gasoline boats	25 Pheasants
21 Seine nets	16 Row boats	175 Decoys
1 Pound net	5 Canoes	1 Steam yacht
23 Trap nets	15 Punts	45 Miscellaneous
	4 Trucks	

All confiscations are sold at advertised sales by tender, other than such articles as are sold by the Department to the former owner, when circumstances warrant.

ACKNOWLEDGMENTS

In conclusion, I desire to publicly express my appreciation for the assistance and support rendered to the Department throughout the year, not only for the loyalty of the staff of both the inside and outside service, but for the assistance of the transportation companies and the Fish and Game Protective Associations, whose officials and employees assisted our officers in the performance of their duties.

Several statistical tables will be found appended to this report.

All of which is respectfully submitted.

I am, Sir,

Your obedient servant,

D. McDONALD,

Deputy Minister of Game and Fisheries.

APPENDIX No. 1

WATERS STOCKED WITH QUANTITIES AND KINDS OF
FISH PLANTED IN 1927

<i>Speckled Trout Fry and Fingerlings</i>			
Algoma:	Quantity	Dufferin:	Quantity
Trout Lake.....	5,000	Cemetery Creek.....	5,000
Moose Lake.....	5,000	Nottawa Creek.....	5,000
Agawa River.....	5,000	Elgin:	
Mongoose River.....	5,000	Silver Brook.....	3,500
Spruce Lake.....	5,000	Golden Brook.....	3,500
Loon Lake.....	10,000	Fanning Brook.....	3,500
Hobon Lake.....	5,000	Alward Creek.....	3,500
Alva Lake.....	5,000	Wintermute Creek.....	2,000
Sand Lake.....	5,000	Frontenac:	
Deer Lake.....	5,000	Sharbot Lake.....	5,000
Carpenter Lake.....	15,000	Trout Lake Creek.....	5,000
Wartz Lake.....	5,000	Charlton Creek.....	5,000
Beryl Lake.....	5,000	Grey:	
Island Lake.....	5,000	Beaver River.....	5,000
Maggie River.....	5,000	Sydenham River.....	11,000
Mountain Lake.....	5,000	Silver Creek.....	8,500
Fish Lake.....	5,000	Palmer Pond.....	5,000
Teal Lake.....	5,000	Markdale Waterworks Stream and Pond.....	5,000
Michipicoten River.....	5,000	Huron:	
Montreal River.....	5,000	Sharp's Creek.....	15,000
Chippewa River.....	5,000	Stoltz Creek.....	5,000
Brant:		Johnston's Creek.....	5,000
St. George's Mill Pond.....	3,500	Porter's Creek.....	5,000
Bruce:		Haliburton:	
Phillips Creek.....	10,000	Blue Lake.....	1,000
Sullivan Creek.....	5,000	Gold Spring Lake.....	5,000
Colpoy's Creek.....	5,000	Fletcher Lake.....	5,000
Judges Creek.....	5,000	Halton:	
Rourke's Creek.....	5,000	Bronte Creek.....	5,000
Langside Creek.....	5,000	Murray's Creek.....	3,500
Markman Creek.....	5,000	Twelve Mile Creek.....	5,000
Muskrat Creek.....	1,000	Hastings:	
Sharp's Springs.....	1,000	Lake St. Peter.....	10,000
Thacker Creek.....	1,000	Baptiste Lake.....	2,700
Pettigrew Springs.....	1,000	Rawdon Creek.....	5,000
Durham:		Burk's Creek.....	5,000
Mount Pleasant Creek.....	5,000	Mayhew's Millpond and Creek	5,000
Moons Creek.....	5,000	Spring Brook Creek.....	10,000
Mountjoys Creek.....	1,000	Bird's Lake.....	5,000
Glass Creek.....	3,500	Black Jack Creek.....	5,000
Kendal Creek.....	5,000	Hawkin's Creek.....	5,000
Tucker's Creek.....	5,000	Lanark:	
Allen's Creek.....	3,500	Paul's Lake.....	2,800
Liskard Creek.....	3,500	Clyde River.....	5,000
Mill Pond near Millbrook.....	5,000	Middlesex:	
Langstaffe Stream.....	5,000	Duncrief's Creek.....	3,500
Pasture Creek.....	5,000	Manitoulin:	
Orono Creek.....	3,500	Blue Jay Creek.....	3,500
Patterson's Creek.....	3,500	Muskoka:	
Muldrew's Stream.....	5,000	Lake Vernon.....	1,000
Johnson's Creek.....	5,000	Fairy Lake.....	1,000
Soper's Stream.....	5,000	East River.....	1,000
Hall's Creek.....	5,000	Echo Lake.....	1,000
Barton's Creek.....	5,000		
Unnamed waters.....	5,000		
Gifford's Stream.....	5,000		
Elliott's Stream.....	5,000		
Sculthorp's Stream.....	5,000		
Broadfoot's Creek.....	5,000		
Rutherford's Creek.....	3,500		

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1927—*Continued*

Speckled Trout Fry and Fingerlings

	Quantity
Nipissing:	
Otter Lake.....	5,000
Crooked Lake.....	3,000
Four Mile Creek.....	5,000
North River.....	5,000
Fatty Lake.....	3,500
Crystal Lake.....	5,000
Twin Lakes.....	5,000
Harrington Lake.....	5,000
Lake Alexander.....	5,000

Norfolk:

South Creek.....	1,000
Forestville Creek.....	3,000
Sterling Creek.....	3,000

Northumberland:

Woodland Creek.....	5,000
Muttons Creek.....	5,000
Trout Creek.....	5,000
West Creek.....	5,000
Barrett's Creek.....	5,000
Baltimore Creek.....	10,000
Cold Creek.....	5,000
Dartford Creek.....	5,000
Jackson's Creek.....	5,000
Burnley Stream.....	5,000
Russ Creek.....	5,000
Philip's Creek.....	5,000
Shelter Valley Creek.....	3,500
Dawson Creek.....	6,000
Forestell's Creek.....	5,000
Braden Creek.....	5,000
Staple's Creek.....	1,000
Colton Creek.....	5,000
Hefferons Creek.....	5,000
Dempsey Creek.....	5,000
Rowes Creek.....	5,000
Big Creek.....	5,000
Hess Creek.....	5,000
Colborne Creek.....	5,000
Coheen Creek.....	5,000
Haynes Creek.....	5,000
Crosby Creek.....	10,000
Goodfellow Creek.....	5,000
Grill's Creek.....	5,000
Simpson Creek.....	6,000
Mitchell's Creek.....	5,000
Robert Shread Creek.....	5,000
Salt Creek.....	3,500
McQuoid's Creek.....	3,500
Burnley Bay.....	1,000

Ontario:

Spring Creek on Meadow Brook Farm.....	1,000
Community Lake.....	1,000
Lount Stream.....	1,000
Fitzpatrick Stream.....	1,000

Oxford:

Brooksdale Creek.....	5,000
Folden's Creek.....	3,500

Parry Sound:

Rock Lake.....	3,500
Bacon Lake.....	3,500
Distress River.....	3,500

Parry Sound—*Continued*

	Quantity
Eagle Lake.....	7,000
South River.....	5,500
Lynx Creek.....	3,500
Hughes Lake.....	3,500
Baldick's Creek.....	3,500
Muris Creek.....	3,500
Barrett's Creek.....	3,500
Beaver Lake.....	1,000

Peterborough:

Ouse Creek.....	5,000
Spillsbury Creek.....	3,500
Plats Creek.....	5,000
Sedgrick's Creek.....	5,000
Buchanan's Creek.....	5,000
Sunset Stream.....	15,000
Birdsall Stream.....	5,000
Comstock Creek.....	3,500

Peel:

Montgomery Creek.....	3,500
Credit River.....	28,500
Spring Creek.....	3,500
Ferguson Creek.....	3,500

Perth:

Creek on farm of W. Jeffery, Lot D, Con. 8.....	3,500
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Renfrew:

Brennan's Creek.....	1,000
Gultz Creek.....	1,000
Rapid Creek.....	1,000
Malone's Creek.....	1,000
Contant Creek.....	1,000
Rodden's Creek.....	1,000

Simcoe:

Pine River.....	3,500
Boyne River.....	3,500
Coldwater River.....	5,000
Copeland's Creek.....	5,000
Sturgeon River.....	3,500
Nottawasaga River.....	13,500
Pretty Rivers.....	3,500
Bear Creek.....	8,500
Hog Creek.....	5,000
Dummond Creek.....	5,000
Hark Creek.....	5,000
Baxter Creek.....	3,500
McTague's Creek.....	3,500
Solomon Creek.....	1,000

Sudbury:

Massey Creek.....	5,000
Emery Creek.....	5,000
Rapid River.....	5,000
Pump Creek.....	5,000
Geneva Creek.....	5,000
Markstay.....	5,000
Silver Creek.....	1,000

Thunder Bay:

Allen Creek.....	27,000
Trout Lake.....	10,000
Long Lake.....	7,000
Moose Lake.....	7,000
McKenzie River.....	2,000
Lake Wideman.....	7,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1927—*Continued*

Speckled Trout Fry and Fingerlings

<i>Thunder Bay—Continued</i>	Quantity
Twin Lake.....	10,000
Lower Twin Lake.....	7,000
Upper Twin Lake.....	7,000
Silver Lake.....	30,000
Pearl River.....	10,000
McIntyre Creek.....	10,000
Three Mile Creek.....	10,000
McVicar's Creek.....	10,000
Coldwater Creek.....	10,000
Stewart Lake.....	10,000
Spring Creek.....	10,000
Deception Lake.....	10,000
Anderson Lake.....	7,000
Currant River.....	10,000
Neebing River.....	10,000
Nipigon River.....	30,000
Fraser Creek.....	10,000
Castle Lake.....	10,000
Sunset Lake.....	10,000
McKenzie Lake.....	17,000
Clegg Lake.....	7,000
Mirror Lake.....	10,000
Lake Ada.....	10,000
Whitehorse Lake.....	7,000
Biggar Lake.....	7,000
Pratt Lake.....	7,000
Mountain Lake.....	10,000
Gulch Lake.....	10,000
Lost Lake.....	7,000

Timiskaming:

Moffatt Creek.....	5,000
Hudson Creek.....	5,000
Matagami River.....	5,000
Red Stone.....	5,000
Bristol Creek.....	5,000
Craft's Creek.....	5,000
Shaw's Creek.....	5,000
Water Cross Creek.....	5,000
Mount Joy.....	5,000
Grassy Creek.....	5,000
Red Sucker Creek.....	5,000
Kamascotia River.....	5,000
St. Jean Baptist.....	6,000

Waterloo:

Mill's and Blair's Creek and Dam.....	50
Bowman's Creek.....	3,500
Lautenslaeger Creek.....	1,000
Cook's Creek.....	3,500
Mill Lake Blair.....	2,000
Goettings Creek.....	1,000
Enny's Creek.....	1,000
Dumart's Creek.....	1,000

Wentworth:

McIntyre's Creek.....	5,000
Leslie's Creek.....	5,000
Spencer Creek.....	1,000

Wellington:

Gaynor's Stream.....	5,000
Farewell Creek.....	1,000
Ponds at Ontario Reformatory	5,000

Parent Speckled Trout

<i>Durham:</i>	Quantity
Boys' Training School Creek..	150
<i>Grey:</i>	
Holland Lake.....	150
<i>Norfolk:</i>	
Patterson's Creek.....	50
Spooky Hollow Stream.....	50
Silver Lake.....	56
<i>Wellington:</i>	
Prison Farm Creek.....	150

Salmon Trout Fry and Fingerlings

<i>Great Lakes:</i>	
Lake Ontario.....	3,015,000
Lake Superior.....	5,700,875
North Channel.....	1,444,000
Lake Huron.....	4,770,000

<i>Addington:</i>	
Loon Lake.....	15,000
Bass Lake.....	15,000
Little Weslemkoona Lake....	30,000

<i>Algoma:</i>	
Trout Lake.....	30,000
Basswood Lake.....	30,000
Sand Lake.....	15,000
Island Lake.....	30,000
Chiblaw Lake.....	15,000
Keichel Lake.....	15,000
Oba Lake.....	15,000
Lonely Lake.....	15,000
Achigan Lake.....	15,000
Lake Anjigami.....	15,000
Lake Constant.....	15,000
Bull Lake.....	15,000

<i>Frontenac:</i>	
Sharbot Lake.....	25,000
Cross Lake.....	15,000
Crow Lake.....	15,000
Trout Lake.....	30,000
Brule Lake.....	15,000
Canonto Lake.....	15,000
Indian Lake.....	15,000
Buck Lake.....	15,000

<i>Haliburton:</i>	
Drag Lake.....	15,000
Spruce Lake.....	15,000
Daves Lake.....	15,000
Gull Lake.....	15,000
Mountain Lake.....	15,000
Hollow Lake.....	15,000
Deer Lake.....	15,000
Clear Lake.....	15,000
Bare Lake.....	15,000
Wolf Lake.....	15,000
Pine Lake.....	15,000
Paint Lake.....	15,000
Paudash Lake.....	30,000
Twelve Mile Creek.....	30,000
Centre Lake.....	15,000
Stormy Lake.....	15,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1927—*Continued*

<i>Salmon Trout Fry and Fingerlings</i>		Renfrew:	Quantity
Hastings:	Quantity	Clear Lake.....	15,000
Eagle Lake.....	15,000	Barry's Bay.....	15,000
Baptiste Lake.....	30,000	Golden Lake.....	15,000
Lake of Islands.....	15,000	Long Lake.....	15,000
Dickies Lake.....	15,000	Wadsworth Lake.....	15,000
Burnt Lake.....	15,000	Trout Lake.....	15,000
Bass Lake.....	15,000	Sudbury:	
Trout Lake.....	15,000	Long Lake.....	15,000
L'Amable Lake.....	15,000	Trout Lake.....	15,000
Capoway Lake.....	15,000	Wahnapiatae Lake.....	15,000
Clear Lake.....	15,000	Devils Lake.....	15,000
Crooked Lake.....	15,000	Pike Lake.....	15,000
Cedar Lake.....	15,000	Marion Lake.....	15,000
Fongamong Lake.....	15,000	Thunder Bay:	
Kenora:		Lake Nipigon.....	945,000
Lake of the Woods.....	25,000	Lake Shebandawan.....	25,000
Eagle Lake.....	25,000	Keemle Lake.....	25,000
Lanark:		Lac des Mille Lacs.....	25,000
Silver Lake.....	15,000	Hasel Lake.....	25,000
Christie Lake.....	15,000	Cloud Lake.....	25,000
Leeds:		Little Dog Lake.....	25,000
Charleston Lake.....	40,000	Sturgeon Lake.....	25,000
Rideau Lakes.....	85,000	Timiskaming:	
Otter Lake.....	15,000	Twin Lakes.....	15,000
Muskoka:		Lake Timagami.....	25,000
Lake Vernon.....	15,000	Frere Lake.....	30,000
Fairy Lake.....	30,000	Crystal Lake.....	15,000
Mary Lake.....	30,000	Clear Lake.....	15,000
Peninsular Lake.....	15,000	York:	
Clear Lake.....	30,000	Lake Simcoe.....	25,000
Bella Lake.....	15,000		
Long Lake.....	15,000	<i>Pickernel</i>	
Skelton Lake.....	30,000	Addington:	
Rebecca Lake.....	15,000	Beaver Lake.....	100,000
White Lake.....	30,000	South Beaver Lake.....	100,000
Fox Lake.....	15,000	Algoma:	
Doty's Lake.....	30,000	Echo Lake.....	10,625,000
Waeosa Lake.....	15,000	Lake of the Mountain.....	50,000
Nipissing:		Cataract Lake.....	50,000
Trout Lake.....	25,000	Cataract River.....	50,000
Crooked Lake.....	15,000	Bruce:	
Fatty Lake.....	30,000	Lake Huron.....	57,050,000
Tasso Lake.....	15,000	Durham:	
Parry Sound:		Rice Lake.....	100,000
Deer Lake.....	15,000	Frontenac:	
Ahmic Lake.....	15,000	Clear Lake.....	100,000
Clear Lake.....	15,000	Sharbot Lake.....	200,000
Sugar Lake and Creek.....	15,000	Cross Lake.....	200,000
Sand Lake.....	15,000	Crow Lake.....	100,000
Horne Lake.....	15,000	Sydenham Lake.....	100,000
Maple Lake.....	15,000	Bobs Lake.....	400,000
Bacon Lake.....	15,000	Elbow Lake.....	100,000
Eagle Lake.....	45,000	Fall River.....	100,000
Duck Lake.....	15,000	Crotch Lake.....	100,000
Kashee Lake.....	15,000	Long Lake.....	100,000
Bay Lake.....	15,000	Warren's Lake.....	100,000
Georgian Bay.....	3,340,500	Thompson Lake.....	100,000
Otter Lake.....	30,000	Milk Lake.....	100,000
East Lake.....	15,000	Fourteen Island Lake.....	100,000
Raven Lake.....	15,000	Beaver Creek.....	50,000
		Salmon River.....	100,000

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1927—*Continued*

<i>Pickarel</i>			
Grey:	Quantity	Parry Sound:	Quantity
Sauble River.....	300,000	Magnetawan River.....	100,000
McCaslin's Lake.....	50,000	Ahmie Lake.....	250,000
Hasties Creek.....	50,000	Star Lake.....	100,000
Glengarry:		Distress River.....	100,000
St. Lawrence.....	200,000	Doe Lake.....	100,000
Haliburton:		Blackstone Lake.....	100,000
Clear Lake.....	100,000	Whitestone Lake.....	100,000
Brady's Lake.....	100,000	Isabella Lake.....	100,000
Hastings:		Georgian Bay.....	4,600,000
Stoco Lake.....	100,000	Crane Lake.....	100,000
Eagle Lake.....	100,000	Wah-Wah-Keish Lake.....	100,000
Moir Lake.....	200,000	St. Bernard's Lake.....	10,000
Salmon River.....	100,000	McQuaby's Lake.....	100,000
Burnt Lake.....	100,000	Poverty Bay.....	100,000
Hawkin's Bay.....	100,000	Shawanga.....	100,000
Kenora:		Hardy Bay.....	50,000
Lake of the Woods.....	59,700,000	Prince Edward:	
Eagle Lake.....	200,000	Consecon Lake.....	100,000
Lake Niagara.....	200,000	West Lake.....	100,000
Lambton:		East Lake.....	100,000
Sydenham River.....	100,000	Bay of Quinte.....	27,900,000
Lanark:		Peterborough:	
Dalhousie Lake.....	200,000	Deer Lake.....	10,000
Mississippi Lake.....	200,000	Oak Lake.....	100,000
Black Lake.....	100,000	Otonabee River.....	100,000
Otty Lake.....	100,000	Rainy River:	
Christie Lake.....	200,000	Rainy Lake.....	45,050,000
Mississippi River.....	500,000	Renfrew:	
Patterson Lake.....	100,000	Barry's Bay.....	100,000
Bennett's Lake.....	100,000	Petawawa River.....	100,000
Kerr's Lake.....	200,000	Cormac Creek.....	100,000
Leeds:		Simcoe:	
Rideau Lakes.....	400,000	Lake Couchiching.....	1,000,000
Lower Beverley Lake.....	100,000	Seyvern River.....	3,100,000
Muskoka:		Sudbury:	
Muskoka Lake.....	275,000	Trout Lake.....	100,000
Joseph Lake.....	250,000	Apsey Lake.....	100,000
Lake Rosseau.....	275,000	Matagamasi Lake.....	100,000
Sparrow Lake.....	1,000,000	Thunder Bay:	
Three Mile Lake.....	100,000	Sturgeon Lake.....	200,000
Muldrew Lake.....	100,000	Timiskaming:	
Koshee Lake.....	100,000	Lake Seskinika.....	200,000
Nipissing:		Echo Lake.....	100,000
Lake Nipissing.....	200,000	Lillabelle Lake.....	100,000
Ethier's Lake.....	50,000	Victoria:	
Trout Lake.....	50,000	Sturgeon Lake.....	1,000,000
Hogarth Lake.....	50,000	Balsam Lake.....	250,000
Tanner Lake.....	100,000	Lake Dalrymple.....	200,000
Northumberland:		Waterloo:	
Crow Bay.....	100,000	Grand River and Creek.....	100,000
Trent River.....	600,000		
Colter's Bay.....	100,000		
Ontario:			
Lake St. John.....	100,000		

Whitefish Fry

Great Lakes:	Quantity		
Lake Superior.....	3,500,000		
North Channel.....	1,815,000		
Lake Huron.....	13,250,000		
Lake Erie.....	75,895,000		
Lake Ontario.....	41,000,000		
Algoma:			
Oba Lake.....	500,000		

WATERS STOCKED
WITH QUANTITIES AND KINDS OF FISH PLANTED IN 1927—*Continued*

<i>Whitefish Fry</i>		Frontenac:		Quantity
Kenora:	Quantity	Cranberry Lake.....		300
Lake of the Woods.....	12,950,000	Hastings:		
Eagle Lake.....	2,000,000	Crow Lake.....		200
Parry Sound:		Lanark:		
Georgian Bay.....	64,800,000	Dalhousie Lake.....		200
Prince Edward:		Christie Lake.....		500
Bay of Quinte.....	208,209,500	Middlesex:		
Rainy River:		Dingman's Creek.....		125
Rainy Lake.....	16,870,250	Muskoka:		
Thunder Bay:		Sparrow Lake.....		200
Lake Nipigon.....	8,000,000	Nipissing:		
		Lake Nipissing.....		500
		Parry Sound:		
<i>Herring Fry</i>		Ahmic Lake.....		200
Great Lakes:		Peterborough:		
Lake Erie.....	770,000	Pigeon Lake.....		200
Lake Ontario.....	3,500,000	Stoney Lake.....		200
Frontenac:		Simcoe:		
White Lake.....	50,000	Severn River.....		800
Leeds:		Little Lake.....		500
Bass Lake.....	50,000	Sudbury:		
Parry Sound:		Ramsay Lake.....		300
Lake Bernard.....	50,000	Victoria:		
Prince Edward:		Balsam Lake.....		200
Bay of Quinte.....	13,990,000	Wellington:		
		Puslinch Lake.....		200
<i>Bass Fingerlings</i>		<i>Maskinonge Fry</i>		
Addington:		Victoria:		
South Beaver Lake.....	200	Pigeon River.....		86,000
Sharbot Lake.....	200			
Durham:				
Scugog Lake.....	200			
Rice Lake.....	200			

APPENDIX
GAME AND FISHERIES

Statistics of the Fishing Industry in the Public Waters of the
EQUIP

No.	District	No. of Men	Tugs			Gasoline Launches		Sail and Row Boats		Gill Nets	
			No.	Tons	Value	No.	Value	No.	Value	Yards	Value
					\$		\$		\$		\$
1	Lake of the Woods, Kenora and Rainy River Districts, Inland Waters.....	312	2	23	4,700	141	69,300	115	4,962	350,940	49,924
2	Lake Superior.....	300	14	411	56,600	62	37,480	79	6,045	1,021,740	92,989
3	North Channel.....	198	10	258	71,000	41	21,275	65	4,300	334,047	43,170
4	Georgian Bay.....	572	29	715	221,500	141	103,080	92	4,640	1,492,050	155,184
5	Lake Huron.....	305	17	396	100,755	76	54,960	37	2,460	808,155	101,805
6	River St. Clair, Lake St. Clair and Detroit River.....	127				40	15,500	75	4,630		
7	Lake Erie and Upper Niagara River...	769	35	926	297,000	147	150,715	140	8,734	1,432,615	193,453
8	Lake Ontario, Lower Niagara and St. Lawrence Rivers.....	878	1	3	250	298	137,250	245	12,384	1,406,655	142,439
9	Sundry Inland Waters.....	695	10	227	45,500	60	28,460	192	7,712	326,254	36,635
	Totals.....	4,156	118	2,959	797,305	1,006	618,020	1,040	55,867	7,172,456	815,599

QUANTITIES OF

No.	District	Herring	Whitefish	Trout	Pike	Pickereel (Blue)	Pickereel (Dore)
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1	Lake of the Woods, Kenora and Rainy River District, Inland Waters.....		628,454	121,583	941,692	26,987	1,162,697
2	Lake Superior.....	2,459,357	336,675	2,196,726	7,014		78,801
3	North Channel.....	10,144	214,400	756,225	111,085		112,529
4	Georgian Bay.....	19,417	1,559,583	1,726,272	91,910	56	96,551
5	Lake Huron.....	253,746	191,494	1,669,572	305	158	187,864
6	River St. Clair, Lake St. Clair and Detroit River.....	55	531		30,792	3,783	44,005
7	Lake Erie and Upper Niagara River.....	2,308,686	747,964	179	8,371	3,078,085	166,995
8	Lower Niagara, Lake Ontario and St. Lawrence.....	730,822	1,503,272	713,497	124,351	8,137	40,878
9	Sundry Inland Waters.....	27,692	983,301	313,691	84,610		226,011
	Totals.....	5,809,919	6,165,674	7,497,745	1,400,130	3,117,206	2,116,331
	Values.....	\$ c. 348,595 14	\$ c. 801,537 62	\$ c. 974,706 85	\$ c. 98,009 10	\$ c. 187,032 36	\$ c. 275,123 03

No. 2
DEPARTMENT, ONTARIO
Province of Ontario, for year ending December 31st, 1927
MENT

Seine Nets			Pound Nets		Hoop Nets		Dip and Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves		Total Value
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	
		\$		\$		\$		\$		\$		\$		\$		\$	\$
			65	17,995	60	2,330							118	38,130	96	16,340	203,681
			44	15,785					1,204	110			20	9,125	24	8,815	226,949
			127	9,767	10	350			5,000	1,200			32	15,755	32	22,325	189,142
4	600	530	81	76,550	22	510			38,982	7,233	15	71	46	32,235	44	12,370	613,903
			119	66,400					26,416	5,046			40	15,750	21	6,550	353,726
32	5,945	3,830	206	23,750					4,350	383			31	11,650	17	3,215	62,958
39	11,500	8,825	543	303,700	45	1,110	2	4	2,300	142			86	120,500	51	15,625	1,099,808
8	955	995			597	21,809	4	360	17,525	653			64	14,350	42	9,530	340,020
61	6,920	7,745	39	14,475	225	7,655	41	287	4,855	170	108	839	49	14,140	19	3,385	167,003
144	25,920	21,925	1,224	528,422	959	33,764	47	651	100,632	14,937	123	910	486	271,635	346	98,155	3,257,190

FISH TAKEN

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed Coarse	Caviare	Total	Value	
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	\$	c.
16,062		23,892	540,396	119,905	12,412	211,536	787	3,806,403	381,340	56
248		16	1,201		1,475	70,050		5,151,563	490,698	64
10,064		14,534	1,359	15	4,063	414,629	12	1,649,059	170,988	89
4,199		4,231	265,437	1,255	50,229	150,416	222	3,969,778	476,679	40
10,816		93,972	713,776	662	1,544	121,044	705	3,245,658	347,222	45
9,464		66,695		57,859	140,279	194,745	434	548,642	35,829	17
40,742		2,490,555		42,395	196,972	985,901	1,812	10,068,657	662,978	51
5,667	110,908	100,770	2,549	107,029	68,536	325,135	610	3,842,161	389,504	81
55,641	16,095	23,344	27,255	80,206	293,148	482,979	1,081	2,615,054	273,901	14
152,903	127,003	2,818,009	1,551,973	409,326	768,658	2,956,435	5,663	34,896,975		
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.		\$	c.
61,161 20	10,160 24	169,080 54	108,638 11	32,746 08	38,432 90	118,257 40	5,663 00		3,229,143	57

APPENDIX No. 3

COMPARATIVE STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO

Kind	1926	1927	Increase	Decrease
Herring.....	4,412,173	5,809,919	1,397,746	.....
Whitefish.....	6,404,852	6,165,674	.....	239,178
Trout.....	6,912,725	7,497,745	585,020	.....
Pike.....	1,295,486	1,400,130	104,644	.....
Blue Pickerel.....	3,038,548	3,117,206	78,658	.....
Pickerel (Dore).....	2,307,182	2,116,331	.....	190,851
Sturgeon.....	174,199	152,903	.....	21,296
Eels.....	149,960	127,003	.....	22,957
Perch.....	2,067,708	2,818,009	750,301	.....
Tullibee.....	1,197,071	1,551,973	354,902	.....
Catfish.....	329,087	409,326	80,239	.....
Carp.....	742,103	768,658	26,555	.....
Coarse Fish.....	3,224,631	2,956,435	.....	268,196
Caviare.....	5,294	5,663	369	.....
Total.....	32,261,019	34,896,975	*2,635,956	.....

*Net increase.

APPENDIX No. 4

STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO FOR THE YEAR 1927 COMPILED FROM THE FISHERMAN'S ANNUAL RETURNS

Kind	Quantity	Price per Pound	Value
	lbs.	\$ c.	\$ c.
Herring.....	5,809,919	0 06	348,595 14
Whitefish.....	6,165,674	13	801,537 62
Trout.....	7,497,745	13	974,706 85
Pike.....	1,400,130	07	98,009 10
Blue Pickerel.....	3,117,206	06	187,032 36
Pickerel (Dore).....	2,116,331	13	275,123 03
Sturgeon.....	152,903	40	61,161 20
Eels.....	127,003	08	10,160 24
Perch.....	2,818,009	06	169,080 54
Tullibee.....	1,551,973	07	108,638 11
Catfish.....	409,326	08	32,746 08
Carp.....	768,658	05	38,432 90
Coarse Fish.....	2,956,435	04	118,257 40
Caviare.....	5,663	1 00	5,663 00
Total.....	34,896,975	....	3,229,143 57

APPENDIX No. 5

VALUE OF ONTARIO FISHERIES FOR A PERIOD OF TWENTY YEARS, 1908 TO 1927, INCLUSIVE

Year	Value		Year	Value	
	\$	c.		\$	c.
1908.....	2,100,078	63	1918.....	3,175,110	32
1909.....	2,237,544	41	1919.....	2,721,440	24
1910.....	2,348,269	57	1920.....	2,691,093	74
1911.....	2,419,178	21	1921.....	2,656,775	82
1912.....	2,842,877	09	1922.....	2,807,525	21
1913.....	2,674,686	76	1923.....	2,886,398	76
1914.....	2,755,293	11	1924.....	3,139,279	03
1915.....	3,341,181	41	1925.....	2,858,854	79
1916.....	2,658,993	43	1926.....	2,643,686	28
1917.....	2,866,424	00	1927.....	3,229,143	57



Twenty-Second Annual Report
OF THE
GAME AND FISHERIES
DEPARTMENT

1928

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



ONTARIO

TORONTO

Printed and Published by the Printer to the King's Most Excellent Majesty

1929

Twenty-Second Annual Report

OF THE

**GAME AND FISHERIES
DEPARTMENT**

1928

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

SESSIONAL PAPER No. 9, 1929



TORONTO

Printed and Published by the Printer to the King's Most Excellent Majesty

1929

TO HIS HONOUR W. D. ROSS, ESQ.,
Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

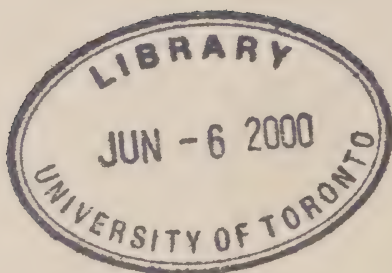
I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Twenty-second Annual Report of the Game and Fisheries Department of this Province.

I have the honour to be,

Your Honour's most obedient servant,

C. MCCREA
Minister of Mines.

Toronto, 1929.



TWENTY-SECOND ANNUAL REPORT

OF THE

Game and Fisheries Department of Ontario

TO THE HONOURABLE CHARLES MCCREA,
Minister of Mines.

SIR:—I have the honour to place before you the Twenty-second Annual Report of the Game and Fisheries Department for the fiscal year ending October 31st, 1928.

FINANCIAL

The subjoined table will show in detail the various sources from which the Department derived its revenue during the year.

ORDINARY

GAME—

Royalty.....	\$122,704 50	
Experimental Fur Farm.....	45 75	
Licenses—		
Trapping.....	\$49,670 00	
Non-resident hunting.....	61,760 00	
Deer.....	63,737 37	
Moose.....	7,540 50	
Gun.....	14,155 55	
Fur Dealers.....	49,859 00	
Fur Farmers.....	5,997 00	
Tanners.....	240 00	
Cold Storage.....	180 00	
	<u>253,139 42</u>	
		\$375,889 67

FISHERIES—

Royalty.....	\$16,024 67	
Licenses—		
Fishing.....	\$110,265 00	
Angling.....	185,445 50	
	<u>295,710 50</u>	
Sales—Spawn taking.....	2,678 41	
		\$314,413 58

GENERAL—

Guides.....	\$5,374 00	
Fines.....	17,055 55	
Costs.....	1,877 80	
Sales—Confiscated Articles.....	9,926 38	
Rent.....	4,160 00	
Commission.....	2,428 35	
Miscellaneous.....	1,683 42	
	<u>42,505 50</u>	

\$732,808 75

CAPITAL

Experimental Fur Farm.....	451 00
----------------------------	--------

\$733,259 75

Following is a comparative table in which is outlined total annual revenue and expenditure of the Department during the past five years, 1924 to 1928, and the surplus in each year:

	Revenue	Expenditure	Surplus
1924.....	\$667,227 96	\$336,826 96	\$330,401 00
1925.....	709,455 73	354,736 09	354,719 64
1926.....	682,063 32	399,744 24	282,319 08
1927.....	721,576 25	492,472 88	229,103 37
1928.....	733,259 75	518,054 96	215,204 79

As in the two years previous, the Department, during 1928, continued to increase its work along enforcement and conservation lines, with the result that expenditures were greater. While the revenue collected continued to show an increase during the year, such increase was not sufficient to take care of the additional expenditure, with the result that the surplus during the period reported upon shows a slight decline.

STATISTICS

Accompanying this report will be found statistical tables showing in detail varieties and quantities of fry and fingerlings of the various species of fish raised in the Provincial hatcheries; and the designation and location of the waters in which such fry and fingerlings were deposited. Likewise there will be found statistics pertaining to fishing and the fur trade, as well as other branches of the Department's work. The figures referred to have been carefully prepared, and afford interesting and valuable information.

FISH

Statistics with reference to commercial fishing in the Province are as follows:

	1926	1927	1928
Gill nets licensed (yards).....	7,001,130	7,172,456	7,269,528
Seines licensed.....	131	144	160
Pound nets licensed.....	1,306	1,224	1,225
Hoop nets licensed.....	1,134	959	880
Dip and roll nets licensed.....	44	47	58
Spears licensed.....	140	123	88
Hooks licensed.....	124,023	100,632	52,467
Number of men employed.....	4,145	4,156	4,128
Number of tugs.....	119	118	114
Number of gasoline boats.....	1,003	1,006	959
Number of sail or row boats.....	1,022	1,040	1,018
Value of boats, ice-houses, wharves and twine.....	\$3,337,737.00	\$3,257,190.00	\$3,432,528.00
Aggregate catch in pounds.....	32,261,019	34,896,975	33,381,704
Values to fishermen.....	\$2,643,686.28	\$3,229,143.57	\$3,033,924.42

Reference to the statement of revenue, which appears elsewhere in this report, shows that the sum of \$314,413.58 was derived as a result of fishery activities in the Province, which may roughly be classified as \$185,445 from angling, non-resident license fees and the balance of \$128,968.08 from commercial fishermen in payment of license fees and royalty, angling for the second consecutive year being responsible for the greater proportion of this income.

Ontario is rapidly becoming popular on account of the splendid opportunities it affords for satisfactory angling. Undoubtedly the increasing numbers of anglers who derive their sport in this Province are taking their toll of our resources, but this Department is not neglecting the restocking and conservation problems, which are receiving continually increasing attention both from the practical and biological viewpoints.

HATCHERIES

At the Department's hatcheries located at Mount Pleasant, Glenora, Sault Ste. Marie, Normandale, Port Carling, Port Arthur, Fort Frances, Collingwood, Wiarton, Kenora, Sarnia, Southampton, Kingsville and Belleville, the work of fish culture is carried on, with various species of fish. The following table shows the results obtained at these hatcheries during the past three years.

	1926	1927	1928
Maskinonge Fry and Fingerlings.....		68,000	53,000
Whitefish Fry.....	260,575,000	448,789,750	346,172,000
Pickeral Fry.....	13,820,000	223,945,000	155,921,750
Salmon Trout Fry and Fingerlings.....	8,501,000	21,465,375	22,806,090
Herring Fry.....	11,225,000	18,410,000	17,830,000
Rainbow Trout Fry and Fingerlings.....	1,800	.....	419
Speckled Trout Fry and Fingerlings.....	1,085,300	1,444,050	1,669,600
Black Bass Fingerlings.....	12,500	5,425	60,833
Parent Black Bass.....	1,569	.....	90
Parent Speckled Trout.....	300	606	200
	295,222,469	714,128,206	544,513,982

The distribution of the 1928 production is detailed on other pages of this report. In all, six hundred and fifty-eight shipments were required to complete this distribution, as follows:—

NUMBER OF SHIPMENTS

Speckled Trout Fingerlings.....	166
Speckled Trout Fry.....	111
Speckled Trout, Parent.....	2
	— 279
Lake Trout.....	134
Pickeral.....	125
Whitefish.....	50
Herring.....	13
Bass Fingerlings.....	42
Bass Fry.....	8
Bass, Parent.....	3
	— 53
Maskinonge.....	2
Rainbow Trout Fingerlings.....	2

658 shipments.

BIOLOGICAL STUDIES

Biological surveys of lakes and streams and specific problems of importance to fisheries were continued under the supervision of the Department's Biologist, Mr. H. H. MacKay. In this work he was assisted by Messrs. R. A. McKenzie and K. Hamilton, graduates in biology of the University of Toronto, and by Messrs. W. L. Dibbon (2), J. Savage (1), A. E. Allin (3), R. F. Cain (2), R. J. Perkin (1), undergraduates in biological courses at the University of Toronto; and by Messrs. G. W. McCracken (4), G. C. Toner (4), R. W. Peavoy (4), undergraduates of Queen's University, Kingston, in biology, or in a course combined with biology. The number after each name signifies the student's year at university.

There is a very great scarcity of qualified men available for field work. Nevertheless, with the ever-increasing interest, increasing demand and possibilities for such work, future prospects for trained men for fisheries' investigations are hopeful. In future it is desirable that sufficient graduates may be available and that the Department may also secure for summer's work the services of active university teachers, especially qualified in fisheries' investigations.

In studying the various lakes and streams standardized methods of procedure have been employed. Lake and stream cards illustrated on pages six, seven, eight and nine, indicate in condensed form the data obtained. These methods have been compared with ones in vogue in certain states of the United States. The methods are so designed that the various waters may be compared physically, chemically and biologically. In this way a fund of information is obtained that is invaluable and forms a comprehensive basis for restocking. The information must be obtained as quickly as possible and at the same time be consistent with accuracy.

As pointed out in previous annual reports, the purpose of biological surveys is to gain a knowledge of the fish best suited to the environment; the number of fish which should be planted according to the conditions of food and shelter; the most satisfactory places to plant the fish; the most satisfactory period to plant fish of different sizes and ages. The latter depends on the food habits of the fish. The available food supply is fundamentally important and must be studied as carefully and as extensively as possible.

DEPARTMENT OF GAME & FISHERIES STREAM CARD

NAME	COUNTY	TOWN	VALUE
SYSTEM	TOWNSHIP	CONCESSION	INVESTIGATOR
MAPS	BOOK NO.	ROUTE	DATE
	SOURCE	MIDDLE PART	MOUTH
GEOLOGY			
WIDTH			
DEPTH			
VOLUME OF FLOW			
VELOCITY OF FLOW			
FEEDERS			
SPRINGS			
SHORES			
BOTTOM			
VEGETATION, MARGINAL			
VEGETATION, SUBMERGED			
WATER, COLOUR			
WATER, TURBIDITY			
WATER, TEMPERATURE			
AIR, TEMPERATURE			
DISSOLVED OXYGEN			
PH			
NATURAL FOOD			

POOL CONDITIONS AND COVER

POLLUTION

POSTED AREAS

PHOTOGRAPHS (INDEX NO.)

OBSTRUCTIONS

SPAWNING GROUNDS

FISH

PLANTING PLACES

LENGTH

MILEAGE AVAILABLE FOR STOCKING

STOCKING POLICY PER MILE

REMARKS

SPECIES OF FISH PLANTED

SPECIES	1927				1928				1929				1930				1931			
	D	A	L	NO.	D	A	L	NO.	D	A	L	NO.	D	A	L	NO.	D	A	L	NO.
SPECKLED TROUT																				
BROWN TROUT																				
RAINBOW TROUT																				
PICKEREL																				
S. M. BASS																				
L. M. BASS																				
MASKINONGE																				

SPECIES	1932				1933				1934				1935				1936			
	D	A	L	NO.	D	A	L	NO.	D	A	L	NO.	D	A	L	NO.	D	A	L	NO.
SPECKLED TROUT																				
BROWN TROUT																				
RAINBOW TROUT																				
PICKEREL																				
S. M. BASS																				
L. M. BASS																				
MASKINONGE																				

ABBREVIATIONS: D—DATE; A—AGE; L—LENGTH

SPECIES	1932				1933				1934				1935				1936			
	D	A	L	NO.	D	A	L	NO.	D	A	L	NO.	D	A	L	NO.	D	A	L	NO.
WHITEFISH																				
HERRING																				
LAKE TROUT																				
SPECKLED TROUT																				
BROWN TROUT																				
RAINBOW TROUT																				
PICKEREL																				
S. M. BASS																				
L. M. BASS																				
MASKINONGE																				

ABBREVIATIONS: D—DATE; A—AGE; L—LENGTH

Biological surveys were carried out on seven hundred and seven (707) lakes and streams in 1928, which is four hundred and seventy-four (474) more than in 1927. This brings the total of individual studies to one thousand and nineteen (1,019). The number of waters studied in the various counties and districts of the Province so far is as follows:—

TABLE I.—BIOLOGICAL SURVEYS OF WATERS

Algoma.....	18	Leeds.....	4	Peterborough.....	24
Brant.....	5	Lennox and Addington.	6	Prince Edward.....	2
Bruce.....	21	Lincoln.....	2	Rainy River.....	6
Carleton.....	1	Kenora.....	1	Renfrew.....	29
Dufferin.....	3	Middlesex.....	5	Simcoe.....	57
Durham.....	13	Muskoka.....	58	Sudbury.....	13
Elgin.....	5	Nipissing.....	10	Temiskaming.....	3
Frontenac.....	29	Norfolk.....	8	Thames Watershed....	472
Glengarry.....	1	Northumberland.....	10	Thunder Bay.....	8
Grey.....	18	Ontario.....	3	Victoria.....	7
Haliburton.....	56	Oxford.....	13	Waterloo.....	13
Halton.....	6	Parry Sound.....	38	Welland.....	2
Hastings.....	26	Peel.....	3	Wellington.....	4
Lambton.....	1	Perth.....	3	Wentworth.....	4
Lanark.....	6			York.....	2
				Total.....	1,019

The biological surveys tabulated above include studies of all the lakes and streams in the township of Oakley in Muskoka, and in the township of Matchedash in Simcoe county.

The planting of fish is one which demands painstaking thoroughness. For the waters so far studied the most suitable planting places have been defined as far as possible. However, it is obvious that it is a very difficult matter to define in words the most suitable locations for planting. Considerable education along these lines is necessary, unless the planting of the fish is taken over by the hatchery officials and the Biologist of the Department and his assistants, entirely. Plans are being made to hold meetings in the various districts of the Province, in order to explain the purpose and importance of biological surveys of lakes and streams, the principles underlying a practical stocking policy, and the methods which should be employed in planting fry, fingerling and adult fish.

Applications for fish for the year 1927-28 numbered 1,142. These were disposed of as follows:—

TABLE II.—DISPOSITION OF APPLICATIONS FOR FISH, 1927-28

	No. of Applications	No. Filled	No. Cancelled Waters Unsuitable	No. Cancelled Duplicate Applications	No. Brought Forward (Biological Studies Necessary)
Speckled Trout.....	456	283	50	11	112
Lake Trout.....	207	138	35	14	20
Rainbow Trout.....	18	2	8	1	7
Brown Trout.....	2	...	1	...	1
Black Bass.....	177	58	34	10	75
Pickrel.....	204	124	51	5	24
Whitefish.....	55	52	1	...	2
Herring.....	20	13	1	...	6
*Pike.....	2	...	...	...	...
Maskinonge.....	1	...	1	...	...
	1,142	670	182	41	247

*Applications not granted, since pike are not propagated by the Department.

In addition to the general lake and stream surveys, the following special problems were undertaken:—

Messrs. H. H. MacKay and R. A. McKenzie commenced a study of the effect of hoop-netting on game fish in the waters of the Rideau System and Lake Ontario. Considerable information of a statistical nature has been compiled, and for the ensuing year the fishermen will be provided with blank forms, as shown on page ten, in order that we may follow the trend of the fisheries and make regulations accordingly. District wardens and overseers will check up the recording of this valuable information. Doubtless, there will be some objections to this taken by the fishermen, but with the assistance of the overseers the difficulties, if any, should be overcome. Studies in connection with hoop-netting may be extended to include,—firstly, the interdependence of coarse fish in these waters with the game fish, and secondly, a study of the spawning periods, and thirdly, the most satisfactory mesh of netting to use which will protect the fish requiring protection.

ONTARIO
GAME & FISHERIES DEPARTMENT
BIOLOGICAL BRANCH

Date Set	Date Lifted	Air Temp.	Water Temp.	S.M.B.B.	L.M.B.B.	Rock Bass	Speckled Bass	Sunfish	Perch	Pickrel	Pike	Catfish	Eels	Dogfish	Suckers	Shiners		
.....
.....
.....
.....
.....

Location.....Bag No.....

Character of bottom.....Depth of water.....

Sworn before me at.....I, the undersigned, do make oath and say that the

County of.....above returns are correct to the best of my knowledge

This.....day of.....192..and belief.

.....Signature of Owner.....

.....Commissioner or J.P.

NOTE.—Each bag should be numbered and this number retained for the entire season. S.M.B.B.=Small-mouthed Black Bass. L.M.B.B.=Large-mouthed Black Bass. Speckled or Calico Bass.

Mr. G. C. Toner undertook studies in connection with,—

1. The pickerel versus the sucker during the spawning season of the former.
2. Bass and bass fishing in the Georgian Bay.

Mr. R. F. Cain carried on observations on Long Point Bay, Lake Erie, prior to, during and after the spawning season of the small-mouthed black bass. Mr. R. J. Perkin carried out similar studies in the waters adjacent to Pelee Island, Lake Erie.

Mr. R. W. Peavoy, commenced a study on the early life-history of the maskinonge in Pigeon Lake and Sturgeon Lake (Kawartha Lakes' District) and later in the season followed up the spawning habits of the black bass. Mr. Peavoy kept daily records of water levels, at chosen stations on both lakes, and endeavoured to determine the effect of falling water levels on deposited ova and young fry.

During the summer a survey was made of the eastern end of Lake Erie to determine, if possible, the reason for the decline of its fisheries. The survey was under the joint auspices of the Federal Government of the United States, the State of New York, the Ontario Government Department of Game and Fisheries, the city of Buffalo, and the Buffalo Society of Natural Sciences. The work of these various bodies was co-ordinated by Dr. Charles J. Fish, Director of the Buffalo Society of Natural Sciences, and the laboratories of the new Buffalo Museum of Science were opened for their use. In connection with this survey, Mr. A. E. Allin studied the intermediate stages of fish taken by the various gear employed. Messrs. H. H. MacKay and A. E. Allin studied the distribution of fish and the food of the fishes in the shallow waters of Long Point Bay, Lake Erie. Messrs. R. A. McKenzie, G. W. McCracken and R. W. Peavoy studied from the critical and experimental standpoints the spawning operations carried out on whitefish and herring in Lake Erie. A number of whitefish were tagged off Nanticoke in order to study their movements and their rate of growth. Lake Erie fishermen have been advised to return tagged fish, if still alive and uninjured, to the water and, if dead, to remove a few scales from the fish, record its length, girth, weight and sex and return this information along with the tag to the Department.

In regard to the results of the investigations, the following concise references appear to sum up the situation in reference to the reason for the decline of the fisheries in Lake Erie:—

"The question is not yet conclusively answered, but concerning all of the eastern end of the lake, except its waters near the shores, it has been established that none of the causes usually ascribed for the failure of the fisheries exists; the waters are pure and uncontaminated, bottom conditions are favourable, and there is an abundance of food for more fish than ever were known to be in the lake."

and,—

"Concerning the general results of the survey, we can safely say that Lake Erie is capable of supporting as many open lake fish as ever. The depletion appears to have resulted from over-fishing and unwise fishing, and as such the remedy must lie in the hands of those legislative bodies having jurisdiction over the lakes."

A general survey of the Thames Watershed was made by Messrs. H. H. MacKay, R. A. McKenzie and R. F. Cain. Mr. Cain is making a special study of the ecology of the higher aquatic plants in streams and their economic importance to fish.

Mr. G. W. McCracken made preliminary studies of the carp in Lake Simcoe with special reference to their spawning habits and their relationship to black bass.

The effect of three-inch mesh gill net on lake trout in Lake Huron and Georgian Bay was made the subject of preliminary study by Mr. G. W. McCracken.

Messrs. H. H. MacKay and R. A. McKenzie studied the effects of trade wastes on fish life in Puce's Creek (Essex County), Sydenham River (Lambton County), Thames River, Sturgeon River (Nipissing), and the Winnipeg River.

Specific complaints in regard to obstruction to fish migration in the Humber River at Lambton Mills and the Nonquon River, near Port Perry, were investigated. The latter investigation is not completed.

Mr. H. H. MacKay studied a parasitic infection of speckled trout from MacKay's Lake, Algoma, and mortality among goldfish at the Goldfish Supply Company, Toronto. The exact identity of flat-worms parasitic on pickerel sent to the Department from Clearwater Lake, Kenora, and fluke-worms parasitic on speckled trout sent to the Department from Norwood, Ontario, were determined by Mr. George W. Hunter, of the Renssler Polytechnic Institute, Troy, New York. In collaboration with Dr. Read, Professor of Bacteriology, Queen's University, Kingston, Messrs. R. A. McKenzie and G. W. McCracken, studied an epidemic disease among suckers in Long Lake, Portland Township, Frontenac County.

Mr. A. W. McLeod, Director of Hatcheries, and Mr. H. H. MacKay, Biologist, and his field assistants, investigated twelve sites suggested for the propagation of bass, or for bass and maskinonge, and seven sites for the propagation of speckled trout.

Noteworthy progress has been made in the culture of speckled trout. In Table III, following, the number, age and size of speckled trout distributed are given. There is considerable variation in the size of fish taken from different hatcheries. Available rearing ponds at Normandale and Mount Pleasant place the fish of these hatcheries at a decided advantage, over those retained in hatchery troughs and fed exclusively on artificial food until they are distributed. Stream and pond conditions at Mount Pleasant and Normandale are as natural as might be expected, and the fish reared under these conditions have considerable natural food at their disposal. Small-mouthed black bass distribution is outlined in Table IV. In Mount Pleasant hatchery ponds during the past year production of fry amounted to approximately 100,000, or a production of 6,250 per fertile nest. Half the fry were distributed as fry, and of those retained, a distribution of 10,833 fingerlings of the sizes and ages shown in Table IV resulted.

TABLE III.—SPECKLED TROUT

Hatchery	Length of Fish inches	Eyed Eggs	Fry	Age in			
				2-2½	3-3½	3	4
Port Arthur.....		60,000		221,000	115,000		
Glenora.....			285,000				
Mount Pleasant.....			190,000				
“ “.....	1-2						80,000
“ “.....	1-2					25,000	
“ “.....	1-2½						5,000
“ “.....	1½-2½						155,000
Sault Ste. Marie.....	1¾-2						110,000
“ “.....	2-2½						
Southampton.....	2¼						
Warton.....	2¼						
“.....	2½						
Southampton.....	2½						
Sault Ste. Marie.....	2½-2¾						
Mount Pleasant.....	2-3						40,000
“ “.....	2½-3¾						25,000
“ “.....	2½-4						
“ “.....	2½-4½						5,000
Southampton.....	2¾						
“.....	3						
Mount Pleasant.....	3-4½						
“ “.....	3-5						
Normandale.....	3-5						
Mount Pleasant.....	3-6						
“ “.....	3½-4½						5,000
Normandale.....	12-16	*(100 2½ years and 100 2½ years)					
		60,000	475,000	221,000	115,000	25,000	425,000

DISTRIBUTION—1928

months

4½	5	5½	5¾	6	6½	7	10	Total
								396,000
								285,000
								190,000
								80,000
								25,000
								5,000
								155,000
								110,000
75,000								75,000
				5,000				5,000
				45,000	5,000			50,000
						10,000		10,000
		55,000	5,000					60,000
5,000	26,000							31,000
								40,000
								25,000
	11,000							11,000
	27,500							32,500
				15,000				15,000
				50,000				50,000
	5,000							5,000
				2,100				2,100
							3,000	3,000
				4,000				4,000
								5,000
								200
80,000	69,500	55,000	5,000	121,100	5,000	10,000	3,000 *200	1,669,800

TABLE IV.—SMALL-MOUTHED BLACK BASS DISTRIBUTION—1928
(MOUNT PLEASANT HATCHERY)

Inches	Fry	3 Months	4 Months
.....	50,000	.....	.....
1½-2.....	.....	500.....	.....
1½-2½.....	.....	800.....	.....
2.....	.....	5,483.....	.....
2-3.....	.....	3,600.....	.....
2-6.....	.....	.....	250.....
3-5.....	.....	200.....	.....
	50,000	10,583	250—Total Fry and Fingerlings 60,833 Adults..... 30
			60,863—Parent lot not disposed of, 1,600

CROWN GAME PRESERVES

At the present time there are some forty Crown Game Preserves, established in accordance with the Department's policy of creating sanctuaries where advisable and desirable for the protection of wild life. The Chapleau Preserve, District of Sudbury, 1,824,000 acres; and the Superior Preserve, District of Thunder Bay, 575,000 acres; represent a substantial percentage of the 2,642,347 acres included in these Preserves. During 1928 the following Preserves were established:—

Preserve	County	Area (acres)
Glen Elm Game Preserve.....	Halton.....	325
Hughes Game Preserve.....	Bruce.....	400

GAME

This Province continues to enjoy popularity among resident and non-resident hunters. Licenses for the taking of big game continue in demand as is evidenced by the table appended herewith, showing comparative figures for the past five years:—

	1924	1925	1926	1927	1928
Resident Moose.....	1,385	1,291	1,359	1,379	1,371
Resident Deer.....	19,517	17,034	23,392	21,111	21,867
Non-resident Hunting.....	1,651	1,581	1,698	2,237	1,721

It is reported that the majority of these licensees were successful in securing their animals.

Ruffed Grouse (Partridge).—This species continues to be found only in very limited numbers, and a continuance of the close season on these birds which has been in effect during recent years is most desirable, in order that they have an opportunity to re-establish themselves.

Sharp-tailed Grouse (Prairie Hen).—More or less native to the northwestern portion of the Province, though their numbers would appear to be extending easterly.

Quail.—Confined to the counties in the southwestern section of the Province, where they appear to be becoming well established.

Ducks.—Continue to make their appearance in sufficient numbers to make the hunting of them a source of considerable satisfaction to a large number of hunters.

Pheasants (English Ring-necked).—Continue to increase in various sections of southern Ontario, particularly in the Niagara district, which seems adapted to the raising of these birds. Since 1922 the Department has carried on the propagation of this species at its Bird Farm, at Eugenia. From this farm last year, 1,209 live birds were liberated in Southern Ontario, and some 16,995 eggs were also distributed. The demand for settings of these eggs is in excess of the supply.

FURS

The number of pelts on which royalty was paid during 1928 was somewhat in excess of that of the previous year, although it is again found necessary to report that general conditions respecting fur-bearing animals do not show much noticeable improvement.

Bear.—Catch remains practically stationary, an indication that this species continues to hold its own.

Beaver.—Catch during 1928 shows some increase. It appears advisable to continue present restrictions as to the taking of these animals.

Fisher.—Would appear to be somewhat more numerous in view of reports and increased catch, though still scarce.

Fox.—There would appear to be slight decline in the different varieties of this animal. Catch for the year remained practically stationary.

Lynx.—Conditions remain unchanged. This species is rather scarce.

Marten.—Conditions similar to those which describe lynx would appear to prevail regarding these animals.

Mink.—Continued decrease in catch. Would appear to be getting scarcer.

Muskrat.—The increased catch in 1928 is not a correct indication of conditions governing this species. Their numbers appear to be decreasing.

Otter.—Catch increased considerably during 1928, but this species continues scarce.

Raccoon.—Generally speaking, these animals would appear to be gradually losing ground.

Skunk.—During 1928 the catch shows a considerable increase. This is one of the few species which are holding up.

Weasel.—Increased catch of 1928 and reports generally indicate a slight improvement in conditions here.

The following table compares for the past six years, pelts of fur-bearing animals, other than those which were ranch-raised, on which royalty was paid:—

	1923	1924	1925	1926	1927	1928
Bear.....	1,447	1,399	2,014	1,635	1,472	1,575
Beaver.....	70,684	50,233	48,364	27,597	20,738	22,040
Fisher.....	2,339	1,910	1,936	2,618	3,904	5,400
Fox (Cross).....	1,154	1,082	2,801	4,175	3,502	4,116
Fox (Red).....	12,329	14,695	22,198	30,535	26,112	25,943
Fox (Silver or Black).....	205	167	433	620	403	646
Fox (White).....	1,501	362	974	226	977	590
Fox (not specified).....	34	28	61	165	136	160
Lynx.....	1,177	2,332	2,200	3,884	4,568	3,845
Marten.....	4,704	3,661	3,125	3,177	3,261	3,492
Mink.....	58,634	82,466	68,138	65,299	37,628	32,009
Muskrat.....	478,820	533,256	534,739	387,022	469,947	514,161
Otter.....	3,997	5,096	4,622	4,304	3,168	4,510
Raccoon.....	15,752	21,976	22,157	21,002	15,958	13,513
Skunk.....	54,770	58,130	67,100	75,503	59,488	79,442
Weasel.....	61,603	51,163	34,365	63,599	72,645	79,425
Wolverine.....	20	12	8	11	15	19
Total.....	769,070	827,948	814,935	691,372	723,922	790,886

The value of the above pelts to the trapper was \$3,927,506.28, and this Province continues to set the pace as the leading producer of fur among the provinces of the Dominion.

In addition to the above the total of ranch-raised foxes, on which no royalty is payable, which passed through the fur farms of the Province was 3,433 of which 2,566 were exported and the balance of 867 dressed in Ontario. These had a value of \$379,751.18.

FUR FARMING

This branch of industry continues to show expansion due to increasing interest on the part of the general public, and in view of conditions as they at present affect the wild fur-bearing animals in the Province, there would appear to be future possibilities in this branch.

Fur Farmers' Licenses issued by the Department during the past five years are as follows:—

1924	1925	1926	1927	1928
392	624	783	986	1,148

and while efforts in this line were originally confined practically to the fox, the appended table shows the extended scope it is assuming. and the increasing number of species with which the 1,148 fur farmers of the Province are experimenting.

ANIMALS STOCKED ON LICENSED FARMS AT DECEMBER 31ST

	1925	1926	1927	1928
Beaver.....	29	100	142	98
Fisher.....	2	28	48	54
Fox (Cross).....	459	397	444	353
Fox (Red).....	725	397	314	365
Fox (Silver Black).....	4,940	7,095	9,664	12,555
Fox (Blue).....	40	49	56	60
Lynx.....	2	3	2	6
Mink.....	136	468	826	1,247
Muskrat.....	7,182	....	1,107	2,016
Opposum.....	....	....	....	....
Raccoon.....	306	290	619	831
Skunk.....	100	49	91	62
Bear.....	13	4	7	13
Marten.....	2	7	21	20
Weasel (Ermine).....	....	....	4	2
Badger.....	....	....	....	4
Total.....	13,936	*8,887	†13,345	†17,686

*Exclusive of Muskrat.

†Includes only pen-raised muskrats.

EXPERIMENTAL FUR FARMING

The first general report in connection with this branch of the Department's activities is set forth herewith, for general information:—

"It can be said without fear of contradiction that the Experimental Fur Farm is the most comprehensive plant in existence conducted for the scientific study of fur farming. The farm has an area of one hundred acres, which is roughly divided into three portions, arable land, marsh and bush.

"The whole acreage is enclosed by a fence with an overhang which serves the double purpose of preventing any animal inside the fence from escaping and also prevents undesirable animals from gaining access to the breeding grounds of the muskrats and beaver.

"Modern dwellings have been erected for the help with every convenience installed. Buildings have been provided to facilitate the care and feeding of the animals, including a cook-house, meat-house, work shop and barn. For the study of diseases a laboratory has been established, with up-to-date equipment, for research work.

"The creek which flows through the farm has been bridged and every portion of the enclosed area is accessible. One of the most desirable features of the farm is the marsh, which can be said to be almost ideal for the propagation of muskrat in the natural state and contains a heavy growth of aquatic plants of many varieties.

"On the farm will be found a very unique collection of animals, including silver, black, white, red, and cross fox, fisher, lynx, mink, marten, skunk, raccoon, beaver, muskrat, moose and deer; also wild ducks, swans and Canada geese. Two wolves are also kept for exhibition purposes.

"One of the first problems facing the breeder of fur-bearing animals is that of suitable housing, and considerable experimental work has been done along this line and is still in progress. All species of fur-bearing animals require warm dry nests, dampness or draughts are invariably fatal over a period of time.

"It has been found with beaver that they require a pen so constructed that they have access to the water at all times. Beaver kept on dry land quickly show the effect, the fur becomes dry and harsh and a condition of a purulent nature affects the eyes. The most satisfactory pen for beaver consists of a dark house, from which leads a tunnel into the water. The house must be high and dry, as well as damp and draught proof.

"Fox pens of different styles have been built in order to determine the most suitable arrangement, taking into consideration, mainly, the need for shade and the best material for flooring.

"It was found that the foxes raised in pens providing partial shade had a better texture to the fur than those raised in open pens without shade. Due to the ever-increasing mortality among foxes from parasitic infection, three different types of floors have been installed, viz.: wood, cement, and gravel, in order to ascertain which of these three materials is the most efficient in preventing the hatching out of the eggs laid by the adult parasites, and which in turn infect the fox.

"The Experimental Fur Farm is finding that the wood and cement floors are much more effective than the gravel ones.

"Mink and muskrat houses featuring a central alley with the nest boxes and feed pans under cover, and the wire runs extending from both sides of the alley have been built, and are a big improvement over open pens entirely exposed

to the weather. It is possible with this type of house to observe the animals without disturbing the entire nest, which is not the case where the den is placed in an open pen and covered with straw.

"With the many different varieties of animals on hand, the study of the most suitable and economical rations occupies a very important place in the experimental work carried on at the farm, and will continue to do so for many years to come.

"The fur farmer is faced with many new problems in this respect not encountered by the breeders of domestic animals, who have years of experience and experimental data to draw from. At all times the effect of various feeds on the colour and texture of the prime pelt has to be carefully considered. At the Experimental Fur Farm very definite data has been obtained with the colour phase of silver fox. While cereals such as corn meal, rolled oats and whole wheat flour may be fed the year round, if such food is continued through the summer months the colour of the pelt is decidedly affected. Any feed containing large quantities of fat, including whole milk, tends to produce a rusty pelt in late fall. It is also becoming evident that fur farmers as a rule are feeding too much meat, heavy meat feeding having a tendency to produce off-colour pelts.

"The question of how far fish can be substituted for meat with fur-bearing animals will be thoroughly investigated this year and it is hoped that reliable data will be secured on this point.

"It is found that animals will thrive on feed that cannot in any way be said to be their natural feed. Beaver, for example, will do well on a diet of roots and grain, and are very fond of bread. The fur farmer cannot, when operating on a commercial basis, feed the natural feed of the animal, and extensive experiments are required to find out how far it is possible to go from the natural without depreciating the pelt value and affecting production of young.

"Many problems in regard to breeding have arisen in the fur farming industry, particularly to in-breeding and line breeding. It is claimed by some that the mating of closely related animals is detrimental to the offspring; while others, again, claim that it is the only possible method by which a uniform strain of animal, showing desirable characteristics, can be bred.

"Results at the Fur Farm tend to show that where judgment is used, in-breeding is a desirable method of producing high-class stock, but the greatest care must be taken that only the best animals be used for such purposes, as the bad as well as the good points of the parents are intensified. It will take considerable time to find out how far it is possible to in-breed a certain family, and still produce healthy, virile stock. Such experiments are now in progress at the Fur Farm.

"There is a steadily-growing demand for advice and help to combat the various diseases that are being found among fur-bearing animals. It is only to be expected as the number of animals kept in captivity increases and fur farms become more congested that new diseases will arise that at present are unknown or go unrecognized by the owner.

"In the past it has been the short-sighted policy of many fur farmers to keep a secret any deaths among their stock; particularly has this been the case where the sale of breeding stock has been bringing high prices. To date, the greatest detriment to the health of fur-bearing animals comes mainly from two sources—parasitic and dietetic. These animals are particularly susceptible to parasites, due to their being kept in small enclosures, with the result that the ground becomes completely saturated with the infection, and medicinal remedies

have only a temporary effect as the animal in a short time becomes re-infected. This continual sapping of their vitality by parasites is very apparent on many ranches, both in production and pelt depreciation.

Parasitic infection has become the most serious hazard the fox rancher has to face to-day and it is a question whether many of them are going to be able to overcome the conditions already established in their ranches and still remain in the business.

"Researches at the Experimental Fur Farm are being carried on, especially on the lungworm. It is interesting to note that foxes sent to Western Canada quickly recover from this worm and the disease is unknown in the Prairie Provinces. Due to its location in the lungs and windpipe, this worm is impossible to kill by direct medication, and is being attacked from other angles, by sanitary flooring of pens by which it is hoped the hatching of eggs will be prevented.

"The hook and round worm are found to be present in 95 per cent. of foxes sent for examination and also cause a large annual loss to the fur farmer. It is found that most fur bearers harbour parasites, including muskrats, mink, marten, lynx, raccoon, fisher, and rabbits, and specimens from each have been identified.

"Where wild animals are taken direct from the wilds and placed in captivity and have to eat whatever is given to them, it is to be expected that some dietetic troubles will arise. The fur farmer may leave out something that is essential for their welfare though it may be needed in only very small quantities. Especially is this true of young animals born in captivity. Rickets, scurvy and an acid condition of the blood are all met with. Considerable investigation as to feeds counteracting these conditions are being carried out. It has been found with mink that a straight cereal and meat diet produces a condition which resembles acidosis. This can be quickly relieved by feeding small quantities of lettuce and canned tomatoes, which seem to reduce the blood to normal.

"Enquiries on every subject connected with fur farming are received, and whenever possible suitable information is supplied. Many post-mortem examinations have been carried out and the findings reported to the owners. Throughout the summer months, numerous live animals are brought to the farm for treatment. There appears to be an ever-increasing demand for such services on the part of the public.

"Fur farming is attracting a wide-spread interest. The correspondence received comes from every Province in the Dominion and especially the Prairie Provinces."

WOLF BOUNTIES

During 1928 the Department received applications for the payment of bounty on 5,988 wolves, an increase of nine per cent. over the number of applications received in the previous year. The Kenora, Rainy River and Thunder Bay Districts supplied 4,862 of these applications, or over 80 per cent. of the total.

In addition to the above, bounties were paid on approximately two hundred wolf pelts received in the Department during the fiscal year ending October 31st, 1927, but too late for payment in that period.

COMPARATIVE STATEMENT OF WOLF SKINS RECEIVED AND BOUNTIES PAID

	Timber	Brush	Pups	Total	Bounties
For fiscal year ending October 31st, 1925...	831	1,066	21	1,918	\$25,465 62
For fiscal year ending October 31st, 1926...	1,022	2,690	107	3,819	51,994 42
For fiscal year ending October 31st, 1927...	1,041	4,414	59	5,514	82,970 07
For fiscal year ending October 31st, 1928...	1,231	4,878	64	6,173	91,297 27

ENFORCEMENT OF THE ACT

The enforcement of the provisions and regulations of the Ontario Game and Fisheries Act was performed in a satisfactory manner by the field officers charged with this work; and the service rendered by the District Wardens and the various overseers under their respective jurisdictions was capably augmented during the Spring and Fall spawning, and deer-hunting seasons by additional seasonal overseers appointed during these periods for the better protection of fish and game and enforcement of the Act.

In nine hundred and sixteen cases in which parties were charged with fish and game violations, convictions were secured. Fines and costs assessed in these cases amounted to \$18,933.35.

In eight hundred and ninety-three of these cases seizures of goods and equipment were made, which summarized may be set forth as follows:—

Pelts.....	2,512	Fire-arms.....	290
Deer and Moose hides.....	15	Gasoline boats.....	10
Live animals.....	26	Row boats.....	10
Fish.....	5,650 lbs.	Canoes.....	22
Gill nets.....	123 pieces	Punts.....	12
	2,075 yds.	Motor cars.....	3
Dip nets.....	20	Jack lights and lanterns.....	9
Hoop nets.....	14	Deer and Moose.....	10
Seine nets.....	16	Venison.....	450 lbs.
Bull nets.....	9	Moose meat.....	435 lbs.
Trap nets.....	3	Partridge.....	10
Hooks.....	3,799	Geese and ducks.....	23
Grapples.....	1	Pheasants.....	10
Gaffs.....	2	Quail.....	32
Spears.....	37	Decoys.....	45
Rods and lines.....	122	Miscellaneous.....	45
Traps.....	1,200		

In accordance with the usual practice, confiscated articles were disposed of by tender at sales which were advertised in the press, except in cases where articles were sold to the former owner where circumstances warranted. The amount received from these sales is shown in the statement of revenue which appears at the beginning of this report.

ACKNOWLEDGMENTS

In conclusion, I desire to publicly express my appreciation of the assistance and support which has been rendered to the Department throughout the year.

The members of the staff, both of the inside and outside services, have faithfully and zealously carried out any and all duties which have been allotted to them, and the spirit of loyal co-operation in the performance of the work has at all times been evident.

Our work has been made more pleasant and attractive by reason of the assistance rendered by the transportation companies and Fish and Game Protective Associations, the officers of which organizations having at all times co-operated with the Department in an earnest endeavour to secure a proper observation of the provisions of the Ontario Game and Fisheries Act.

All of which is respectfully submitted.

I am, Sir,

Your obedient servant,

D. McDONALD,

Deputy Minister of Game and Fisheries.

APPENDIX No. 1

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL WATERS—1928

<i>Speckled Trout Fry and Fingerlings</i>		Elgin:	Quantity
Algoma:	Quantity	Baker Brook.....	5,000
Trout Lake Inlet.....	5,000	Frontenac:	
Long Lake.....	5,000	Beaver Creek.....	1,000
Moose Lake.....	5,000	Grey:	
Mongoose Lake.....	5,000	Beaver River.....	3,000
Spruce Lake.....	5,000	Sydenham River.....	50,000
Loon Lake.....	5,000	Indian River.....	5,000
South Chippewa River.....	5,000	Spring Brook.....	5,000
Batchewana River.....	5,000	Meadow Creek.....	5,000
Sand River.....	5,000	Jamieson's Creek.....	10,000
Wartz Lake.....	5,000	Spring Stream.....	5,000
Gull Lake.....	5,000	Pepper Creek.....	500
Achigan Brook.....	5,000	Sullivan Creek.....	500
Lower Lake.....	5,000	Huron:	
Mountain Lake.....	5,000	B. Creek (twp. Hullett).....	5,000
Fish Lake.....	5,000	Haliburton:	
Michipicoten River.....	5,000	Paint Lake.....	5,000
Little Thessalon River.....	5,000	Upper Fletcher Lake.....	5,000
Spring Creek.....	5,000	McCue Creek.....	5,000
Jackfish River.....	10,000	Spring tributaries to Tallow Lk.....	5,000
Brant:		Halton:	
Spring Creek.....	500	Murray's Creek.....	5,000
St. George Mill Stream.....	500	Sixteen-Mile Creek.....	5,000
Bruce:		Hastings:	
Willow Creek.....	5,000	Tee Creek.....	5,000
Monkman's Creek.....	5,000	Egan Creek.....	5,000
Plum Creek.....	5,000	Spring Brook Creek.....	5,000
Kirklands Creek.....	10,000	Steen's Creek.....	5,000
Matheson Creek.....	3,000	Colburn's Creek.....	5,000
Curlings Creek.....	30,000	Deer Creek.....	5,000
Spring Creek.....	5,000	Robertson Lake.....	10,000
Otter Creek.....	5,000	Cedar Creek.....	5,000
Ainsworth Springs.....	5,000	McConnell's Creek.....	5,000
Hogs Creek.....	5,000	Green's Creek.....	5,000
Stoney Creek.....	3,000	Sidney Creek.....	6,000
Silver Creek.....	3,000	Middlesex:	
Durham:		Duncrief's Creek.....	5,000
Cavan Creek.....	10,000	Spring Ponds.....	10,000
Devitt's Creek.....	5,000	Muskoka:	
Mountjoys Creek.....	5,000	Lake of Bays.....	10,000
Millbrook Creek.....	5,000	Muskoka River.....	10,000
Orono Creek.....	5,000	Little East River.....	10,000
Fallis Creek.....	5,000	Near Cut Lake.....	10,000
Park Stream.....	5,000	Dotty's Lake.....	10,000
Barkwell's Stream.....	5,000	Menominee Lake.....	5,000
McGill's Creek.....	5,000	Echo Lake.....	10,000
Robbins Creek.....	5,000	Deep Lake.....	5,000
Parr's Creek.....	5,000	Turtle Lake.....	5,000
Kelly's Brook.....	5,000	Nelson's Creek.....	5,000
Thornton's Creek.....	5,000	Gipsy Bells Creek.....	5,000
Tamblyn Creek.....	5,000	Big East Creek.....	5,000
Hamm Creek.....	5,000	Holinshead Creek.....	5,000
Village Creek No.1 (twp. Cavan)	5,000	Jessop's Creek.....	5,000
Village Creek No.2 (twp. Cavan)	5,000	Black River.....	5,000
Butternut Creek.....	5,000	Bigwin Creek.....	5,000
Robb Creek.....	3,000	Nipissing:	
Dufferin:		Otter Lake.....	5,000
Funston's Creek.....	5,000	Four-Mile Creek.....	5,000
Boyne River.....	5,000	North River.....	5,000
Nottawa Creek.....	5,000		
Credit River.....	15,000		
Humber River.....	1,000		
Nottawasaga River.....	5,000		

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL
WATERS—1928—*Continued.*

<i>Speckled Trout, Fry and Fingerlings—Cont'd</i>		Perth:	Quantity
Norfolk:	Quantity	Flat Creek.....	5,000
Patterson Lake.....	5,000	Renfrew:	
Pettit Stream.....	1,000	Brindles Creek.....	5,000
Northumberland:		Gultz Creek.....	5,000
Woodland Creek.....	5,000	McGregor Creek.....	5,000
Allen's Creek.....	5,000	Crozier Creek.....	5,000
Trout Creek.....	5,000	Constant Creek.....	5,000
West Creek.....	5,000	Twohey's Lake Creek.....	5,000
Barrett's Creek.....	5,000	Dooner's Creek.....	5,000
Cold Creek.....	5,000	Peever's Creek.....	5,000
Jackson's Creek.....	5,000	Moonbeam Creek.....	5,000
Burnley Stream.....	10,000	Moran's Creek.....	5,000
Philips Creek.....	10,000	Burns Lake Creek.....	5,000
Forestell's Creek.....	5,000	Goshen Creek.....	5,000
Buckley Creek.....	5,000	Simcoe:	
Keeler Spring Creek.....	5,000	Pine River.....	5,000
Castleton Creek.....	5,000	Coldwater River.....	5,000
Ontario:		Sturgeon River.....	15,000
Spring Creek on Meadow Brook		Noisy River.....	5,000
Farm.....	5,000	Batteau Creek.....	5,000
Uxbridge Brook.....	5,000	Pretty Rivers.....	5,000
Altona Mill Pond and Stream..	5,000	Black Ash Creek.....	5,000
Oxford:		Avon River.....	5,000
Brooksdale Creek.....	5,000	Jobbit's Creek.....	5,000
Spring Creek.....	5,000	Dumond Creek.....	5,000
Campbell's Creek.....	5,000	Hark Creek.....	5,000
Parry Sound:		Silver Creek.....	5,000
Loon Lake.....	3,000	Thunder Bay.....	5,000
Sugar Lake Creek.....	5,000	Colwell Creek.....	5,000
Sand Lake.....	5,000	Speer's Creek.....	5,000
Distress River.....	10,000	Goodwin's Creek.....	5,000
Eagle Lake.....	15,000	Woody Creek.....	5,000
South River.....	5,000	Black Creek.....	5,000
South Sequin River.....	15,000	Fresh Water Creek.....	5,000
Buck Lake.....	5,000	Copeland's Creek.....	5,000
Maganetawan Riv. (twp. Perry)	5,000	Sudbury:	
Couchi Lake.....	5,000	Major Lake.....	500
Burton's Creek.....	5,000	Cold Springs.....	500
Ragged Creek.....	5,000	Trout Lake Creek.....	500
Beggsboro River.....	5,000	Wolf Lake.....	500
Prince Edward:		Thunder Bay:	
Stinson's Mill Creek.....	5,000	Allen Lake.....	10,000
Waring's Creek.....	1,000	Trout Lake.....	10,000
Haight's Creek.....	5,000	Lake Nipigon.....	25,000
Peterborough:		Long Lake.....	10,000
Ouse Creek.....	5,000	Moose Creek.....	10,000
Little Ouse Creek.....	5,000	Moose Lake.....	10,000
Plato Creek.....	10,000	McKenzie River.....	20,000
Cook's Creek.....	5,000	Lake Wideman.....	10,000
Sedgwick's Creek.....	5,000	Twin Lake.....	10,000
Buchanan's Creek.....	5,000	Lower Twin Lake.....	10,000
Garbutt Stream.....	5,000	Upper Twin Lake.....	10,000
Webber's Brook.....	5,000	Pearl River.....	10,000
Carver's Creek.....	5,000	Six-Mile Creek.....	1,000
Peel:		Current River.....	20,000
Montgomery Creek.....	5,000	McVicar's Creek.....	10,000
Credit River.....	10,000	Needing River.....	10,000
Lockton Creek.....	5,000	Big Duck Lake.....	10,000
Columbia Stream.....	5,000	Stewart Lake.....	10,000
Marshall's Creek.....	5,000	Nipigon River.....	65,000
Coffey's Creek.....	5,000	Fraser Creek.....	25,000
Hutton's Stream.....	5,000	Anderson Lake.....	10,000
Humber River.....	10,000	McKenzie Lake.....	10,000
		Clegg Lake.....	10,000
		Mountain Lake.....	10,000

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL
WATERS—1928—*Continued.**Speckled Trout Fry and Fingerlings—Cont'd.*

	Quantity
Thunder Bay:— <i>Con.</i>	
Gulch Lake.....	10,000
Anderson's Creek.....	10,000
Helma Lake.....	10,000
Cavern Lake.....	10,000
Beude River.....	10,000

Timiskaming:

Moffatt Creek.....	5,000
Metagami River.....	5,000
Red Stone.....	5,000
Bristol Creek.....	5,000
Croft's Creek.....	5,000
Shaw's Creek.....	5,000
Mount Joy Creek.....	5,000
Grassy Creek.....	5,000
Red Sucker River.....	5,000
Kamascotia River.....	5,000
Water Hen Creek.....	5,000
Duff Creek.....	3,000
Ada Creek.....	5,000

Waterloo:

Sunfish Lake Stream.....	5,000
Mill Creek.....	5,000
Moffatt Creek.....	10,000

Wentworth:

Strabane Creek.....	1,000
Spring Bank Creek.....	5,000
Twelve-Mile Creek.....	5,000
Gallagher's Creek.....	100

York:

Black River.....	5,000
Franklin Creek.....	5,000
Stream in twp. E. Gwillimbury	5,000
Mackie's Pond.....	10,000
Refills....	32,500

Parent Speckled Trout

Grey:	
Jamieson's Creek.....	100

York:

Pond on upper waters of Hy-	
land Creek.....	100

Lake Trout Fry and Fingerlings

Great Lakes:	Quantity
Lake Ontario.....	2,835,000
Lake Superior.....	5,005,790
North Channel.....	1,300,000
Lake Huron.....	6,607,000

Addington:

Weslemkoon Lake.....	15,000
----------------------	--------

Algoma:

Trout Lake (24R-12).....	15,000
Sand Lake.....	15,000
Carpenter Lake.....	15,000
Island Lake.....	15,000
Rack Lake.....	15,000
Lonely Lake.....	15,000
Achigan Lake.....	15,000
Iron Lake.....	15,000
Trout Lake (twp. Aweres).....	15,000

Frontenac:

	Quantity
Sharbot Lake.....	25,000
Gould Lake.....	15,000
Eagle Lake.....	15,000
Crow Lake.....	15,000
Trout Lake.....	50,000
Brule Lake.....	25,000
Canonto Lake.....	15,000
Indian Lake.....	15,000
Queen Bay Lake.....	15,000

Haliburton:

Kashamaganog.....	15,000
Gull Lake.....	30,000
Hollow Lake.....	15,000
Hall's Lake.....	30,000
Boskung Lake.....	30,000
Stormy Lake.....	15,000
Wolf Lake.....	15,000
Pine Lake.....	15,000
Big Bear Lake.....	15,000
Maple Lake.....	15,000
Paudash Lake.....	15,000
Twelve-Mile Lake.....	15,000
Horseshoe Lake.....	15,000
Kushog Lake.....	15,000

Hastings:

Papineau Lake.....	35,000
Baptiste Lake.....	25,000
Lake of Islands.....	15,000
Dickie's Lake.....	15,000
Big Burnt Lake.....	15,000
Little Burnt Lake.....	15,000
Bass Lake.....	15,000
Trout Lake.....	15,000
Copeway Lake.....	15,000
Clear Lake (twp. Lake).....	15,000
Clear Lake (twp. Dungannon).	15,000
Cedar Lake.....	15,000
Fongamong Lake.....	15,000
Island Lake.....	35,000
Jack's Lake.....	15,000
Thompson's Lake.....	15,000
Kamaniskeg Lake.....	15,000
West Lake.....	15,000

Kenora:

Eagle Lake.....	25,000
-----------------	--------

Leeds:

Rideau Lakes.....	100,000
-------------------	---------

Muskoka:

Lake of Bays.....	50,000
Lake Vernon.....	15,000
Fairy Lake.....	15,000
Clear Lake.....	15,000
Bella Lake.....	15,000
Long Lake.....	15,000
Skeleton Lake.....	15,000
Buck Lake.....	15,000
White Lake.....	15,000
Fox Lake.....	15,000
Oxbow Lake.....	15,000

Nipissing:

Trout Lake.....	15,000
Turtle Lake.....	15,000

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL
WATERS—1928—*Continued.*

Lake Trout Fry and Fingerlings—Continued

	Quantity
Parry Sound:	
Deer Lake.....	15,000
Ahmic Lake.....	15,000
Sugar Lake.....	15,000
Sand Lake.....	15,000
Horne Lake.....	15,000
Maple Lake.....	15,000
Eagle Lake.....	15,000
Trout Lake.....	15,000
Ruthe Lake.....	15,000
Georgian Bay.....	3,568,300
Otter Lake.....	15,000
McQuaby Lake.....	15,000
Cariboo Lake.....	15,000
Star Lake.....	15,000
Peterborough:	
Oak Lake.....	15,000
Eels Lake.....	15,000
Loon Lake.....	15,000
Renfrew:	
Long Lake.....	5,000
Carson's Lake.....	25,000
Pough Lake.....	15,000
Wadsworth Lake.....	15,000
Diamond Lake.....	5,000
Thunder Bay:	
Long Lake.....	20,000
Keemle Lake.....	20,000
Lac des Mille Lacs.....	20,000
Lake Nipigon.....	1,810,000
Timiskaming:	
Twin Lakes.....	15,000
Crystal Lake.....	15,000
Fairy Lake.....	15,000
<i>Pickeral</i>	
Addington:	Quantity
Beaver Lake.....	100,000
South Beaver Lake.....	100,000
Algoma:	
Echo Lake.....	6,261,750
Brant:	
Lower Oakland Ponds.....	50,000
Bruce:	
Sauble River.....	300,000
Lake Huron.....	43,850,000
Dundas:	
St. Lawrence River.....	100,000
Frontenac:	
Big Clear Lake.....	100,000
Clear Lake (Twp. Kennebec).....	100,000
Clear Lake (Twp. Oso).....	100,000
Sharbot Lake.....	100,000
Crow Lake.....	100,000
Bob's Lake.....	100,000
Green Bay Lake.....	200,000
Long Lake.....	100,000
St. Lawrence River.....	100,000

Hastings:	Quantity
Stoco Lake.....	100,000
Moirs River.....	100,000
Salmon River.....	100,000
Oak Lake.....	50,000
Kenora:	
Upper Manitou Lake.....	100,000
Wabigoon Lake.....	200,000
Lake of the Woods.....	22,600,000
Eagle Lake.....	100,000
Tawatinaw Lake.....	100,000
Lambton:	
Sydenham River.....	50,000
Lanark:	
Dalhousie Lake.....	200,000
Christie Lake.....	100,000
Leeds:	
Rideau Lakes.....	500,000
Muskoka:	
Muskoka Lake.....	1,000,000
Lake Joseph.....	1,000,000
Lake Rosseau.....	600,000
Sparrow Lake.....	500,000
Muldrew Lake.....	100,000
Koshee Lake.....	100,000
Muskosh River.....	100,000

Pickeral

Nipissing:	Quantity
Lake Nipissing.....	100,000
Trout Lake.....	200,000
Lake Nosbonsing.....	100,000
Talon Lake.....	100,000
Lake, Concession No. 1, Twp. Badgerow.....	100,000
Northumberland:	
Rice Lake.....	100,000
Crow Bay.....	100,000
Trent River.....	300,000
Crow River.....	150,000
Heeley Falls.....	50,000
Middle Falls.....	50,000
Ontario:	
Nonquon River.....	50,000
Parry Sound:	
Deer Lake.....	100,000
Mill Lake.....	100,000
Maganetawan River (Twp. Bur- ton).....	100,000
Ahmic Lake.....	100,000
Bear Lake.....	100,000
Ceccebe Lake.....	100,000
Trout Lake.....	200,000
Doe Lake.....	200,000
Owl Lake.....	100,000
Isabella Lake.....	300,000
Georgian Bay.....	100,000
Wilson's Lake.....	100,000
Crane Lake.....	100,000
Shawanaga River.....	100,000

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL
WATERS—1928—*Continued.*

Pickereel—Continued

Parry Sound— <i>Con.</i>	Quantity
Osler's Lake.....	100,000
Cariboo Lake.....	100,000
Swan Lake.....	100,000
Ryan's Lake.....	100,000
Squaw Lake.....	100,000

Prince Edward:	
West Lake.....	100,000
Bay of Quinte.....	16,800,000

Peterborough:	
Otonabee River.....	200,000

Rainy River:	
Rainy Lake.....	50,160,000

Renfrew:	
Lake Dore.....	250,000
Mink Lake.....	250,000
Madawaska River.....	50,000
Sturgeon Lake.....	100,000
Ottawa River.....	550,000

Russell:	
Castor River.....	50,000

Simcoe:	
Gloucester Pool.....	1,000,000
Severn River.....	200,000
Nottawasaga River.....	1,050,000
Cook's Lake.....	50,000
Deep Bay Lake.....	100,000

Stormont:	
St. Lawrence River.....	100,000
Bergins Lake.....	100,000

Sudbury:	
French River.....	500,000
Ted's Lake.....	100,000
Cutler Lake.....	100,000

Thunder Bay:	
Baril Lake.....	100,000

Timiskaming:	
Kenogami Lake.....	100,000
Sesekinika Lake.....	200,000
Commando Lake.....	100,000
Minard's Lake.....	100,000
Lillabelle Lake.....	100,000
Nelson's Lake.....	100,000

Waterloo:	
River Nith.....	50,000

Wentworth:	
Lake Ontario.....	100,000

Whitefish

Great Lakes:	
Lake Superior.....	14,211,000
North Channel.....	13,250,000
Lake Huron.....	27,500,000
Lake Erie.....	44,100,000
Lake Ontario.....	20,600,000

Kenora:	Quantity
Lake of the Woods.....	6,846,000
Eagle Lake.....	1,000,000
Tawatinaw Lake.....	100,000

Parry Sound:	
Georgian Bay.....	63,920,000

Prince Edward:	
Bay of Quinte.....	146,740,000

Rainy River:	
Rainy Lake.....	7,105,000

Thunder Bay:	
Sturgeon Lake.....	500,000
Lake Nipigon.....	300,000

Herring

Great Lakes:	
Lake Erie.....	6,250,000
Lake Ontario.....	3,500,000

Addington:	
Bass Lake.....	50,000

Prince Edward:	
Bay of Quinte.....	5,030,000

Rainy Lake:	
Rainy Lake.....	3,000,000

Bass Fry and Fingerlings

Addington:	
South Beaver Lake.....	200

Frontenac:	
Crow Lake.....	5,000
Bobs Lake.....	5,000

Hastings:	
Moirs River.....	200
Oak Lake.....	200

Kent:	
Rondeau Bay.....	10,000

Lanark:	
Dalhousie Lake.....	200
Mississippi Lake.....	200
Christie Lake.....	200

Leeds:	
Rideau Lakes.....	10,000

Muskoka:	
Muldrew Lake.....	200
Dickies Lake.....	200
Long's Lake.....	200

Nipissing:	
Trout Lake.....	200
Pine Lake.....	200

Parry Sound:	
Deer Lake.....	200
Maple Lake.....	200
Cecebe Lake.....	400

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL
WATERS—1928—*Continued.**Bass Fry and Fingerlings—Continued*

	Quantity
Parry Sound— <i>Con.</i>	
Duck Lake.....	200
Otter Lake.....	200
Cariboo Lake.....	200
Star Lake.....	200
Powell's Lake.....	200
Peterborough:	
Pigeon Lake.....	1,000
Buckhorn Lake.....	283
Stoney Lake.....	500
Belmont Lake.....	200
Round Lake.....	200
Square Lake.....	200
Renfrew:	
Mink Lake.....	200
Barry's Bay.....	200
Carson's Lake.....	200
Simcoe:	
Gloucester Pool.....	5,000
Little Lake.....	5,000
Sturgeon Bay.....	200
Sudbury:	
French River.....	400
Victoria:	
Sturgeon Lake.....	1,400
Cameron Lake.....	500
Balsam Lake.....	5,500
Goose Lake.....	200

Waterloo:	Quantity
Fisher Mill Dam.....	5,000
Conestoga Stream.....	200
Grand River.....	200

Wellington:	
Puslinch Lake.....	250

Parent Bass

Halton:	
Fairy Lake (Large-mouth)....	30

Lanark:	
Patterson Lake (Small-mouth)	30

York:	
Grenadier Pond (Large-mouth)	30

Maskinonge

Victoria:	
Pigeon River.....	6,000
Scugog River.....	47,000

Rainbow Trout Fingerlings

Sudbury:	
Rapid River.....	209
Wahnapiatae Lake.....	210

APPENDIX

GAME AND FISHERIES

Statistics of the Fishing Industry in the Public Waters

EQUIP

No.	District	No.	Tugs			Gasoline Launches		Sail and Row Boats		Gill Nets	
		Men	No.	Tons	Value	No.	Value	No.	Value	Yards	Value
					\$		\$		\$		\$
1	Kenora and Rainy River Districts....	313	1	10	2,500	144	77,500	107	4,332	356,235	52,974
2	Lake Superior.....	401	15	474	66,300	65	32,423	75	6,245	1,091,542	94,529
3	North Channel.....	176	11	306	76,000	34	22,075	55	4,350	395,570	51,581
4	Georgian Bay.....	594	27	677	213,825	138	98,570	114	5,700	1,453,980	157,896
5	Lake Huron.....	302	15	407	96,000	80	65,625	40	2,480	904,886	127,584
6	Lake St. Clair, St. Clair and Detroit Rivers.....	124				40	13,725	69	3,710		
7	Lake Erie and Upper Niagara River...	808	36	921	286,000	145	165,290	151	9,235	1,463,655	207,186
8	Lake Ontario, Lower Niagara and St. Lawrence Rivers.....	776				256	117,330	227	13,421	1,257,910	127,141
9	Sundry Inland Waters.....	634	9	202	25,500	57	24,310	180	8,901	345,750	25,551
	Totals.....	4,128	114	2,997	766,125	959	616,848	1,018	58,374	7,269,528	844,442

QUANTITIES OF

No.	District	Herring	Whitefish	Trout	Pike	Pickarel (Blue)	Pickarel (Dore)
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1	Kenora and Rainy River Districts.....		478,522	85,651	866,867	26,011	1,018,219
2	Lake Superior.....	2,969,984	326,988	1,914,230	8,798		108,721
3	North Channel.....	9,177	210,531	637,380	48,784	100	107,760
4	Georgian Bay.....	16,456	1,357,736	1,583,168	56,748		82,444
5	Lake Huron.....	314,011	224,262	1,460,179	814	900	184,142
6	Lake St. Clair, St. Clair and Detroit Rivers.....	70	455		23,337	4,825	53,295
7	Lake Erie and Upper Niagara River...	1,273,348	987,889	56	15,020	2,103,794	182,024
8	Lake Ontario, Lower Niagara and St. Lawrence Rivers.....	705,822	1,068,399	805,959	132,018	14,017	33,360
9	Sundry Inland Waters.....	11,651	1,168,666	172,842	94,413		231,323
	Totals.....	5,300,519	5,823,448	6,659,465	1,246,799	2,149,647	2,001,288
		\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
	Values.....	318,031.14	757,048.24	865,730.45	87,275.93	128,978.82	260,167.44

No. 2

DEPARTMENT, ONTARIO

of Ontario, for year ending December 31st, 1928

MENT

Seine Nets			Pound Nets		Hoop Nets		Dip and Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves		Total Value
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value	
		\$		\$		\$		\$		\$		\$		\$		\$	\$
			42	12,075	37	1,720							127	41,030	93	16,480	208,611
			52	22,950					16	40			21	10,455	31	8,140	241,082
			130	62,900									30	15,500	23	25,300	257,706
7	1,100	1,093	86	150,000	27	500			27,389	4,672	15	564	48	31,722	52	23,410	687,952
			123	69,350					12	51			45	20,150	20	6,550	387,790
30	5,895	3,482	206	25,455	2	300			3,455	121			33	13,275	20	3,930	63,998
49	12,900	9,896	549	317,300	29	510	3	11	3,440	124			94	148,200	61	22,010	1,165,762
13	2,315	1,965			560	18,510	5	505	12,810	525			53	10,695	31	3,602	293,694
61	6,578	6,415	37	12,750	225	7,632	50	374	5,345	195	73	570	51	10,930	19	2,805	125,933
160	28,788	22,851	1,225	672,780	880	29,172	58	890	52,467	5,728	88	1,134	502	301,957	350	112,227	3,432,528

FISH TAKEN

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed Coarse	Caviare	Total	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	\$ c.
19,677		20,764	262,312	129,114	6,289	224,252	820	3,138,498	315,864 44
1,203		90	3,737		1,031	65,674		5,400,456	487,733 67
9,656		13,437			166	390,736	59	1,427,786	148,574 09
2,266		4,962	176,779	4,719	54,789	190,256	15	3,530,338	422,315 82
9,544		64,960	466,891	1,139	1,610	110,347	806	2,839,605	307,656 50
11,958	8,500	71,980		56,159	135,587	186,056	438	552,660	37,849 10
42,381	36	4,330,376		53,324	214,915	1,090,646	1,734	10,295,543	692,925 24
5,777	92,366	163,415		112,508	120,616	334,352	20	3,588,629	348,365, 44
36,735	21,895	23,418	120,707	77,845	189,035	459,140	519	2,608,189	272,640 12
139,197	122,797	4,693,402	1,030,426	434,808	724,038	3,051,459	4,411	33,381,704	
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
55,678 80	9,823 76	281,604 12	72,129 82	34,784 64	36,201 90	122,058 36	4,411 00		3,033,924 42

APPENDIX No. 3

COMPARATIVE STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO

Kind	1927	1928	Increase	Decrease
	lbs.	lbs.	lbs.	lbs.
Herring.....	5,809,919	5,300,519	.....	509,400
Whitefish.....	6,165,674	5,823,448	.....	342,226
Trout.....	7,497,745	6,659,465	.....	838,280
Pike.....	1,400,130	1,246,799	.....	153,331
Blue Pickerel.....	3,117,206	2,149,647	.....	967,559
Pickerel Dore.....	2,116,331	2,001,288	.....	115,043
Sturgeon.....	152,903	139,197	.....	13,706
Eels.....	127,003	122,797	.....	4,206
Perch.....	2,818,009	4,693,402	1,875,393	.....
Tullibee.....	1,551,973	1,030,426	.....	521,547
Catfish.....	409,326	434,808	25,482	.....
Carp.....	768,658	724,038	.....	44,620
Coarse Fish.....	2,956,435	3,051,459	95,024	.....
Caviare.....	5,663	4,411	.....	1,252
Total.....	34,896,975	33,381,704	.....	*1,515,271

*Net decrease.

APPENDIX No. 4

STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO FOR THE YEAR 1928
COMPILED FROM THE FISHERMEN'S ANNUAL RETURNS

Kind	Quantity	Price per Pound	Estimated Value
	lbs.	\$ c.	\$ c.
Herring.....	5,300,519	0 06	318,031 14
Whitefish.....	5,823,448	13	757,048 24
Trout.....	6,659,465	13	865,730 45
Pike.....	1,246,799	07	87,275 93
Blue Pickerel.....	2,149,647	06	128,978 82
Pickerel Dore.....	2,001,288	13	260,167 44
Sturgeon.....	139,197	40	55,678 80
Eels.....	122,797	08	9,823 76
Perch.....	4,693,402	06	281,604 12
Tullibee.....	1,030,426	07	72,129 82
Catfish.....	434,808	08	34,784 64
Carp.....	724,038	05	36,201 90
Coarse Fish.....	3,051,459	04	122,058 36
Caviare.....	4,411	1 00	4,411 00
Total.....	33,381,704	....	3,033,924 42

APPENDIX No. 5

VALUE OF ONTARIO FISHERIES FOR A PERIOD OF TWENTY YEARS, 1909 TO 1928, INCLUSIVE.

Year	Value	Year	Value
	\$ c.		\$ c.
1909.....	2,237,544 41	1919.....	2,721,440 24
1910.....	2,348,269 57	1920.....	2,691,093 74
1911.....	2,419,178 21	1921.....	2,656,775 82
1912.....	2,842,877 09	1922.....	2,807,525 21
1913.....	2,674,686 76	1923.....	2,886,398 76
1914.....	2,755,293 11	1924.....	3,139,279 03
1915.....	3,341,181 41	1925.....	2,858,854 79
1916.....	2,658,992 43	1926.....	2,643,686 28
1917.....	2,866,424 00	1927.....	3,229,143 57
1918.....	3,175,110 32	1928.....	3,033,944 42



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Publications

JLB.

Twenty-Third Annual Report

OF THE

Game and Fisheries Department

1929

AND

Report of a Special Committee

ON THE

Game-Fish Situation

1928-1930

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO



TORONTO:

Printed and Published by Herbert H. Ball, Printer to the King's Most Excellent Majesty

1930

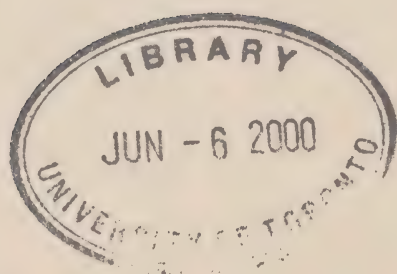
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OF THE
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1929

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SESSIONAL PAPER No. 36, 1930



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1930



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Committee Report

Game Fish Situation.....Pages 1 to 122

TO HIS HONOUR W. D. ROSS, ESQ.,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the Twenty-third Annual Report of the Game and Fisheries Department of this Province.

I have the honour to be, ¹

Your Honour's most obedient servant,

C. MCCREA,

Minister of Mines.

Toronto, 1930.

TWENTY-THIRD ANNUAL REPORT

OF THE

Game and Fisheries Department of Ontario

TO THE HONOURABLE CHARLES MCCREA,
Minister of Mines.

SIR:—I have the honour to place before you this Twenty-third Annual Report of the Department of Game and Fisheries of Ontario, covering the year 1929.

FINANCIAL

The subjoined table will show in detail the various sources from which the Department derived its revenue during the fiscal year ending October 31st, 1929.

REVENUE FOR FISCAL YEAR 1929

ORDINARY

GAME—

Royalty.....	\$110,091 70	
Licenses—		
Trapping.....	\$51,190 00	
Non-resident hunting.....	69,380 00	
Deer.....	64,983 63	
Moose.....	7,458 00	
Gun.....	29,032 95	
Fur Dealers.....	48,112 00	
Fur farmers.....	7,298 50	
Tanners.....	200 00	
Cold Storage.....	155 00	
	<u>277,810 08</u>	\$387,901 78

FISHERIES—

Royalty.....	15,765 12	
Licenses—		
Fishing.....	\$112,363 10	
Angling.....	214,470 25	
	<u>326,833 35</u>	
Sales—Spawn taking.....	3,377 61	345,976 08

GENERAL—

Guides Licenses.....	\$5,862 00	
Fines.....	15,193 85	
Costs.....	1,384 29	
Sales—Confiscated Articles, etc.....	12,321 68	
Rent.....	3,933 00	
Commission.....	3,098 55	
	<u>\$41,793 37</u>	
Less miscellaneous refunds.....	715 13	41,078 24

EXPERIMENTAL FUR FARM—

Sale of milk.....	1 70	
	<u>\$774,957 80</u>	

CAPITAL

EXPERIMENTAL FUR FARM—

Sale of Pelts.....	417 00	
	<u>\$775,374 80</u>	

The following comparative table outlines the annual revenues and expenditures of this Department in each of the past five years, 1925 to 1929, as well as showing the surplus in the years mentioned:

	Revenue	Expenditure	Surplus
1925.....	\$709,455 73	\$354,736 09	\$354,719 64
1926.....	682,063 32	399,744 24	282,319 08
1927.....	721,576 25	492,472 88	229,103 37
1928.....	733,259 75	518,054 96	215,204 79
1929.....	775,374 80	607,835 95	167,538 85

It will be observed that the year 1929 continued the succession of annually increasing revenues, but this increase, while constituting a considerable amount in itself, was not sufficient to balance the 1929 increase in expenditure over 1928, consequent upon the enlarging activities of the Department in its different branches, and more particularly as these activities were affected by the work of fish and game propagation and the enforcement of the provisions of the Act and Regulations. As a result we find that the surplus this year is very much reduced in comparison with the surplus of previous years.

STATISTICS

Appended to this report will be found statistical tables showing in detail the varieties and quantities of fry and fingerlings of the various species of fish raised in the several Provincial fish hatcheries; as well as the designation and location of the waters in which such fry and fingerlings have been deposited. In addition there are also statistical tables in connection with the commercial fishing industry, the fur trade and other branches of Departmental work. The figures in all cases have been very carefully prepared and afford most interesting and valuable information.

GAME

Pursuit of the larger native game animals continued its attraction last year, as a perusal of the appended comparative table showing the number of hunting licenses issued during the past five years will indicate.

	1925	1926	1927	1928	1929
Resident Moose.....	1,291	1,359	1,379	1,371	1,356
Resident Deer.....	17,034	23,392	21,111	21,867	22,164
Non-resident Hunting.....	1,581	1,698	2,237	1,721	1,975

In this connection it is interesting to note that reports reaching the Department are to the effect that the majority of these hunters brought their activities for the season to a successful conclusion.

According to reports received from the District Superintendents it appears that deer and moose are more than holding their own in the northern and north-western portions of the province, while increasing numbers of caribou in those sections would seem to justify the close season on this species which went into effect in 1929.

Ruffed Grouse (Partridge).—Apparently, during 1929, conditions showed marked improvement in all sections of the Province and reports are that these birds are to be found in considerably increased numbers.

Sharp-tailed Grouse (Prairie Hen).—As in the last annual report, it must be said that these birds are confined to the northwestern section of the Province. Not much change in conditions, though a little improved.

Quail.—This species is confined to the southwestern counties. Reports are that numbers are not sufficient as yet to warrant a regular open season.

Ducks.—Continue to make their appearance in sufficient numbers to make the hunting of them a source of considerable satisfaction to a large number of hunters.

Pheasants (Ring-necked).—This species continues to thrive and increase its numbers in the most southerly sections of Ontario and is becoming very popular. The propagation of these birds is carried on at the bird farm at Eugenia and by interested individuals throughout the Province to whom settings of eggs are shipped on application. During 1929, from the Eugenia Bird Farm, some 16,000 eggs were shipped for hatchery purposes, practically 1,100 chicks were raised to maturity, and 1,345 adult birds liberated.

Hungarian Partridge.—Accommodation has been prepared at Normandale to make provision at that point for the propagation of this species along the lines carried on at Eugenia in connection with the ring-necked pheasant. The small supply secured by the Department last year was received too late in the season to obtain results.

FURS

While there was again an increase in the number of pelts on which royalty was paid, accounted for by increase in number of muskrat pelts, generally speaking conditions affecting our fur bearers showed little, if any, improvement. This condition is largely attributable to the intensive trapping carried on in the past, but strict enforcement of present regulations and observance by all concerned of existing close seasons will assist in the re-establishment of our fur-bearing animals.

Bear.—Catch shows a little increase, possibly accounted for by slightly increased prevalence of these animals.

Beaver.—Catch shows marked decrease. In that section of the Province in which close season prevails there is noticeable improvement in the conditions affecting this species. Restrictions on the taking of beaver are evidently justified.

Fisher.—Apparently holding its own even though catch was somewhat diminished as compared with previous year.

Fox.—The annually diminishing catch is an indication that this animal is decreasing in numbers.

Lynx.—Conditions show no improvement. Becoming scarce throughout the Province.

Marten.—As in the case of lynx, this species is becoming very scarce.

Mink.—Reports are to the effect that numbers of mink are diminishing in practically all sections.

Muskrat.—Remarkable increase in number taken in 1929 as compared with previous year does not correctly indicate conditions. Rather than improving its position numerically, this species is decreasing.

Otter.—Catch practically stationary. Similar remarks as applied to beaver would apply in this case. Otter are very scarce.

Raccoon.—This species is no more than holding its own. Catch remained stationary.

Skunk.—Showing improvement in its position, though there was some decrease in the catch.

Weasel.—One of the few species which shows an improved condition as evidenced by increased catch.

The following table compares for the past six years, pelts of fur-bearing animals, other than those which were ranch-raised, on which royalty was paid:

	1924	1925	1926	1927	1928	1929
Bear.....	1,399	2,014	1,635	1,472	1,575	1,888
Beaver.....	50,233	48,364	27,597	20,738	22,040	17,348
Fisher.....	1,910	1,936	2,618	3,904	5,400	4,343
Fox (Cross).....	1,082	2,601	4,175	3,502	4,116	1,606
Fox (Red).....	14,695	22,198	30,535	26,112	25,943	14,550
Fox (Silver or Black).....	167	433	620	403	646	197
Fox (White).....	362	974	226	977	590	16
Fox (not specified).....	28	61	165	136	160	132
Lynx.....	2,332	2,200	3,884	4,568	3,845	1,718
Marten.....	3,661	3,125	3,177	3,261	3,492	2,738
Mink.....	82,466	68,138	65,299	37,628	32,009	29,893
Muskrat.....	533,256	534,739	387,022	469,947	514,161	714,019
Otter.....	5,096	4,522	4,304	3,168	4,510	4,562
Raccoon.....	21,976	22,157	21,002	15,958	13,513	13,653
Skunk.....	58,130	67,100	75,503	59,488	79,442	75,773
Weasel.....	51,163	34,365	63,599	72,645	79,425	117,053
Wolverine.....	12	8	11	15	19	6
Total.....	827,948	814,935	691,372	723,922	790,886	999,495

The value of these pelts to the trapper, amounting to \$3,719,582.72, is somewhat below the 1928 figure, though Ontario continues to lead the Provinces of the Dominion as a producer of fur.

In addition to the above, the total of ranch-raised silver and black foxes, dressed or exported, on which no royalty is payable, and which were raised on the licensed fur farms of the Province, was 5,767; 4,610 of which were exported, and the balance of 1,157 were dressed in the Province. These pelts had a value of \$537,311.39.

FUR FARMING

A reference to the subjoined table giving the numbers of fur farming licenses issued by the Department annually for the past five years, will show that activities in this connection during 1929 continued to extend, and as the interest of the individual fur farmer becomes more firmly established the success obtained in the raising of fur-bearing animals in captivity or semi-captivity is more assured. Every fur-bearer, native of the Province, is now included in the list of animals being propagated on these farms.

Fur farmers' licenses issued by the Department during the past five years are as follows:

1925	1926	1927	1928	1929
624	783	986	1,148	1,360

ANIMALS STOCKED ON LICENSED FARMS AT DECEMBER 31ST

	1925	1926	1927	1928	1929
Beaver.....	29	100	142	98	93
Fisher.....	2	28	48	54	67
Fitch.....	.....	.....	.....	.....	3
Fox (Cross).....	459	397	444	353	385
Fox (Red).....	725	397	314	365	489
Fox (Silver Black).....	4,940	7,095	9,664	12,555	16,457
Fox (Blue).....	40	49	56	60	107
Lynx.....	2	3	2	6	5
Mink.....	136	468	826	1,247	3,068
Muskrat.....	7,182	.....	1,107	2,016	2,163
Otter.....	.....	.....	.....	.....	2
Raccoon.....	306	290	619	831	1,337
Skunk.....	100	49	91	62	22
Bear.....	13	4	7	13	13
Marten.....	2	7	21	20	0
Weasel (Ermine).....	.....	.....	4	2	37
Badger.....	.....	.....	.....	4	7
Total.....	13,936	*8,887	†13,345	†17,686	†24,255

*Exclusive of Muskrat.

†Exclusive of muskrat and beaver in semi-captivity.

EXPERIMENTAL FUR FARM

Considerable progress was made during the year 1929 in the various lines of activity carried on at the Experimental Fur Farm. Silver fox, cross fox and red fox, beaver, raccoon, mink and skunk were all successfully bred and raised to maturity. The beaver are among the first reported to be bred in captivity. The wild life at large on the Farm, including red deer, Canada geese and wild ducks, also reared young.

The Farm this year was in the position to pelt for revenue fifty-seven foxes and thirty-nine raccoon, the maximum number of these animals which is considered desirable to keep for breeding stock having been retained. Fifty pairs of foxes, including red, white, silver and cross fox, are on hand. Raccoon, at present pelt prices, would not appear to be a profitable branch of fur farming. Feed costs and overhead expenses absorb any profit from the sale of pelts.

Mink raising is attracting wide-spread attention from all parts of the Dominion and is rapidly becoming one of the major branches of research work.

During the year two pair of marten were added to the stock and will be studied in regard to their breeding habits and nutritional requirements.

Many enquiries are received in connection with muskrats, both for the pen and enclosed area type of farming. At the present time, the Farm is not in a position to encourage the pen farming of muskrats. Heavy losses in breeding stock having been met with due to parasitic infections, which are very commonly found in muskrats in the vicinity of the Fur Farm. The enclosed marsh is still purely a speculative enterprise, and if overcrowding of the animals takes place, disease can be expected to take a serious toll of the muskrat population.

While the initial construction work connected with the Farm is completed, additional fox and mink pens were built to accommodate the increase in young. It was also found necessary to extend the laboratory facilities in order to meet

the ever-increasing demand for advanced research with the diseases of fur-bearing animals. An exhibition pen and look-out tower were built at the entrance to the Farm. The pen contains one specimen of animal of each variety kept, so that the general public, other than fur farmers, may have an opportunity of observing them and becoming familiar with their characteristics.

Inbreeding experiments from previous years were carried on with silver foxes. It has been found that where brother and sister were mated together for the third generation there was a decided decline in prolificacy; the number of pups per litter showing a distinct decrease from year to year. On the other hand, line-breeding, mother to son, father to daughter, produced exceptionally high quality pups.

Interesting but not conclusive results were obtained in the breeding of cross foxes. With red females mated to silver black males variable results were obtained. In some cases the progeny were well marked high class cross fox, in others the progeny were either red or pointed. In this connection one valuable observation has been made, namely, that cross fox trapped in the open invariably produce pups with the cross marking when mated either with silvers or red foxes. It may be possible through the use of these foxes to establish a true breeding strain of fox. These experiments are being carried on and it is hoped to establish definite data in this respect within a few years.

Breeding experiments with mink were confined to general observations on their habits and the most satisfactory method of handling them during the breeding season. The polygamous system, whereby the male is introduced to the female daily until she breeds, is considered more satisfactory than pairing them off for the season. Not only can fewer males be kept but definite data can be obtained on the breeding qualities of both the male and female. One vigorous male mink can mate at least with four females. Some males are timid and are frightened if the female is at all vicious. When the polygamous mating is used such males can be eliminated with a consequently higher percentage of producing females. The gestation period with mink is very irregular, ranging from forty-three to sixty-two days with the stock at the Fur Farm. A number of the females will accept the male from the eighth to the eleventh day after the first mating, consequently it is safer to try them out at this date regardless of whether the first mating was successful or not. The females are excellent mothers, attending to their young with great care, and if properly handled show little fear of the attendant. The breeding season with mink appears to commence on the third of March.

Satisfactory results were obtained with raccoon, thirty-one young were born from five breeding females, one raccoon having a litter of eight. It is necessary to separate the females before the young are born. Raccoons will eat each other's young whenever a chance is provided. One male can be paired off with at least four females during the winter.

Somewhat radical changes from the customary methods of feeding fox pups were made this year. The prevalent idea that fresh meat should be excluded from the diet of the female when she commences to carry feed to her young was entirely disregarded. Under natural conditions the fox would bring into the den, rabbits, mice and other small carnivore. Consequently fresh meat and small bones would constitute the first meals of the young pup. Following this line of reasoning, the standard ration consisting of raw meat or fish, ground bone-meal, raw vegetables and cereals was fed through the entire nursing and weaning period to the female. After weaning, the pups were placed on the same ration, with the exception that one egg per day for four pups was added.

The results were highly successful. Not only did the pups develop into strong-boned, well-grown foxes, but there was an entire absence of any intestinal troubles so common among young fox pups, and which officials at the Experimental Fur Farm attribute to the over-feeding of semi-liquid feeds, in the form of cereals and milk and eggs, and a lack of fresh meat.

It was definitely established that an over-abundance of the anti-rachitic vitamins can produce the very trouble that they are given to prevent, viz., ricketts. Eggs, milk and cod oil are all abundant in anti-rachitic substances, and should be fed only in small quantities. Eggs have a putrefactive effect on the intestines of fox pups and should be mixed with solid feeds. Spectacular results were obtained with fox pups suffering from malnutrition through excess feeding of soft feeds when they were placed on the standard ration.

The effect of feeding horse meat during the summer and early fall months was carefully compared with the results obtained with beef and beef offal. There was no doubt but that the effect was detrimental to the colour of the pelt. Foxes which in previous years had shown good, clear colour took on a decidedly brown tinge to the fur. It was also noted that when horse meat was discontinued, and the rations consisted mainly of beef offal (such as tripe, beef hearts and liver), there was decided improvement in the colour of the pelt.

No critical feeding experiments were attempted with mink. The animals were fed the standard ration and raised their young with complete success from a nutritional point of view. The young thrived and developed to maturity on the same ration. Future experimenting will take place with mink on the effects of various combinations of feed on the quality of the fur.

Mink farmers are frequently corresponding with the Fur Farm regarding a dietetic condition. This condition is characterized by swellings of the hind legs and profuse urination in the male and female. In all cases the diet is defective, in that it does not contain fresh feed, particularly in the winter months. By the addition of fresh vegetables, such as canned tomatoes, and small quantities of yeast, the disease is overcome.

The investigation of all types of diseases in fur bearing animals takes an important place in the work. Routine examinations of feces, post-mortems, and treatment of sick animals are rapidly growing. During the spring and summer months animals are brought to the Farm daily for a large variety of conditions—parasitic infestations, broken legs, obstetrical operations, wounds and a number of the more common organic diseases, such as pneumonia and all classes of gastro-intestinal disturbances. Research on the use of board floors for the eradication of the internal parasites was continued. It was definitely shown that the use of well-drained board-floored pens is of the utmost value in eradicating the lung worm in pups. Pups born from parents both of which are infected with the disease, do not become infected if born on the board floor pen. It has also a noticeable effect on the hook worm, but is not effective against the round worm. The grossest infections of lung and hook worm are found in foxes run on grass-bottomed pens. The grass and loose state of the earth created an ideal environment for the development of the eggs of the parasite to the infective stage. It has been noted that the bladder worm is apparently increasing in Ontario foxes and further work is needed to find a measure to control this menace.

For the first time, two well-defined cases of tuberculosis were found in foxes. The fox has always been considered more or less immune to this disease.

The internal parasites continue to be the main source of mortality with fur-bearing animals. Practically no animals trapped in the wilds appear to be free from them. Different species have been identified in the fox, mink, lynx, raccoon, fisher, beaver, wolf and muskrat.

The mink is much subject to the trematode species and no doubt becomes infested through his aquatic habits. Fish and snails are probably the intermediate host of a number of mink parasites. Three different species of trematodes have been identified in the mink. One new species, the *Parametorchis canadaensis*, was discovered at the Fur Farm. This species is found in the gall-bladder. The *Plagiorchis proximus* is found in the duodenum. A very small trematode which appears to be related to the salmon poisoning fluke, *Nanophyetus salmincola*, is found in the small intestines. A worm of microscopic proportions of the *Capillaria* sp., and a new species of tapeworm, not as yet named, are also found in the small intestines. Two worms of particular interest, one of the *Dioctophyme renale*, and one of the *Oslerus*, or a related form, have been found in mink. The *Dioctophyme renale* inhabits the kidney and causes large deposits of bony substances in that organ. This worm is particularly destructive. The *Oslerus* infests the pulmonary veins and has a peculiar knot-like structure and seems to adhere firmly to the outer membrane of the vein.

With the muskrat, two types of flukes, intestinal and liver, are very commonly found. The *Echinostomum coalitum* infests the intestines and is found in enormous quantities. One interesting parasite infesting the muskrat are larval cestodes, found in the peritoneal cavity of the *Taenia* sp. The *Cysticercus fasciolaris*, the larval form of *taenia Taeniaeformis*, is commonly met with, also *H. evaginata*.

Ascaris sp. have been identified in the raccoon, also the immature form of the *Physaloptera* sp.

In the lynx, *Toxocaris mystax*, the round worm of the cat, was found.

Two trematodes, of the species *Echinostoma* and *Hemistomum*, were found in the fisher.

Platypsyllus castoris, a type of parasitic beetle, was removed from beaver.

CROWN GAME PRESERVES

Following is a list giving description, location and area of the Crown Game Preserves in Ontario as at December 31st, 1929:

Crown Game Preserve	Location	Acreage
Abbey Dawn.....	Frontenac County.....	300
Anderdon Township.....	Essex County.....	1,200
Bobcaygeon.....	Victoria and Peterborough Counties.....	1,700
Boyd.....	York County.....	300
Caverly.....	Elgin County.....	25
Chapleau.....	Algoma and Sudbury Districts.....	1,824,000
Chippewa.....	Thunder Bay District.....	2,728
Conroy Marsh.....	Renfrew County.....	3,300
Darlington.....	Durham County.....	298
Dumfries.....	Waterloo and Brant Counties.....	25,000
Dundas Marsh.....	Wentworth County.....	2,750
Eden.....	Wellington County.....	1,470
Eugenia.....	Grey County.....	5,200
Falcon.....	Kenora District.....	15,000
Glendale.....	Wentworth County.....	450
Glen Elm.....	Halton County.....	325
Gloucester.....	Carleton County.....	200
Hiawatha.....	Algoma District.....	160
Hope.....	Durham County.....	1,920

Crown Game Preserve	Location	Acreage
Hughes.....	Bruce County.....	400
Huron.....	Huron County.....	1,000
Innisfree.....	Simcoe County.....	400
Iroquois.....	Manitoulin District.....	150
Loch Garry.....	Glenarry County.....	6,400
Mallard Lake.....	Grey County.....	100
Marmora.....	Hastings County.....	10,300
Masonville.....	Middlesex County.....	6,500
Meadowvale.....	Peel County.....	300
Miner.....	Essex County.....	1,280
Nipissing.....	Nipissing District.....	155,500
Nopiming.....	Renfrew and Carleton Counties.....	1,540
Nottawasaga.....	Simcoe County.....	1,200
Peasemarsh.....	Grey County.....	300
Peel.....	Peel County.....	2,400
Proton.....	Grey County.....	6,240
Puslinch.....	Wellington County.....	704
Richmond.....	Parry Sound District.....	56
Rockcliffe Park.....	Carleton County.....	500
Shirley Bay.....	Carleton County.....	2,700
Silver Lake.....	Norfolk County.....	3,100
Southwold.....	Elgin County.....	200
Sudbury.....	Sudbury District.....	15,500
Superior.....	Thunder Bay District.....	575,000
Township 82.....	Sudbury District.....	5,760
Toronto Township.....	Peel County.....	3,000
Wilder Lake.....	Grey County.....	4,000
York.....	York County.....	115,000
Total.....		2,805,856

Of these Crown Game Preserves, the following were established during the year reported upon: Mallard Lake, Caverly, Toronto Township, Abbey Dawn, Rockcliffe Park, Nipissing, Shirley Bay, Proton and Anderdon Township, while the boundaries of the Wilder Lake and Peel preserves which had previously existed were extended. The Pickering Crown Game Preserve, located in the county of Ontario, ceased to exist.

The objects for which these Game Preserves are established are most commendable, and their existence is having a very beneficial effect on conservation and propagation of game animals and birds in the districts in which they are located. The Department regards with satisfaction the general observance of the Regulations in this connection and the increasing interest of the public in the creation of additional Game Preserves in order that the wild life of the Province may be provided with some adequate means of sanctuary for its protection.

WOLF BOUNTIES

During 1929 the Department received applications for the payment of bounty on 3,588 wolves, which it will be noted was considerably less than the number received in the previous year. As usual the large majority of the applications had their origin for animals taken in the extreme northwestern section of the Province.

COMPARATIVE STATEMENT OF WOLF SKINS RECEIVED AND BOUNTIES PAID

	Timber	Brush	Pups	Total	Bounties
For fiscal year ending October 31st, 1925...	831	1,066	21	1,918	\$25,465 62
For fiscal year ending October 31st, 1926...	1,022	2,690	107	3,819	51,994 42
For fiscal year ending October 31st, 1927...	1,041	4,414	59	5,514	82,970 07
For fiscal year ending October 31st, 1928...	1,231	4,878	64	6,173	91,297 27
For fiscal year ending October 31st, 1929...	1,165	2,389	34	3,588	53,495 13

ENFORCEMENT OF THE ACT AND REGULATIONS

The enforcement of the provisions and regulations of the Ontario Game and Fisheries Act was performed in a very satisfactory manner by the field officers charged with the work. The service rendered by the District Superintendents and the Overseers under their respective jurisdictions was capably augmented during the Spring and Fall spawning, and deer hunting seasons, by numerous seasonal overseers appointed for duty during their periods for the better protection of fish and game and enforcement of the Act.

In this connection we would like to make reference to the services along these lines which are rendered by the Deputy Game and Fishery Wardens. Last year there were 265 such appointments granted to public-spirited citizens, interested in the conservation of our wild life and the observance of the legislative provisions and regulations. These Deputy Game Wardens act without remuneration and perform their services in an unselfish manner in order to render whatever help they may to maintain the wild life resources of the Province. In practically all cases their assistance has been valuable in promoting the objects of our legislation.

In 972 cases in which parties were charged with violations of fish and game regulations, convictions were secured. Fines and costs in these cases amounted to \$16,949.05.

In 1,102 cases, seizures of goods and equipment were made, which summarized may be set forth as follows:

Pelts.....	1,942	Fire-arms.....	331
Deer and Moose hides.....	10	Gasoline boats.....	8
Live animals.....	38	Row boats.....	14
Fish.....(lbs.)	5,612	Canoes.....	4
Gill nets.....(pieces)	681	Punts.....	10
.....(yards)	1,972	Motor cars.....	7
Dip nets.....	20	Jack lights and lanterns.....	13
Hoop nets.....	12	Deer and Moose.....	12
Seine nets.....	18	Venison.....(lbs.)	400
Pound nets.....	3	Moose Meat.....(lbs.)	280
Trap nets.....	4	Partridges.....	45
Hooks.....	3,306	Geese and ducks.....	54
Grapples and gaffs.....	4	Pheasants.....	23
Spears.....	58	Decoys.....	125
Rods and lines.....	80	Frogs' legs.....(lbs.)	25
Traps.....	1,191	Miscellaneous.....	62

In accordance with the usual practice, confiscated articles were disposed of by tender at sales which were given publicity through the medium of the press and our district offices, except in those cases in which the confiscated articles were sold to the former owner where the circumstances warranted. The amount received from these sales appears in the statement of revenue which appears at the commencement of this report.

REPORT OF THE FISH CULTURE BRANCH

During the past year a new branch of the Department of Game and Fisheries, known as the Biological and Fish Culture Branch, was created. This new departure will unify the biological and fish cultural activities of the Department by bringing together the more practical and scientific lines of endeavour so that it may be possible to apply scientific findings or the results of biological inquiries to the fish cultural activities of our hatcheries.

The functions of the Branch pertain to all matters, either directly or indirectly, related to fish culture and the fisheries of Ontario.

The biological field work is done during the summer months when graduates and undergraduates of our provincial universities in good standing, (that is, with the necessary background for fisheries' investigations), may be drawn into the service to work on various freshwater fishery problems. A limited number of qualified men is available each year from the Department of Biology, University of Toronto. Queen's University, Kingston, and the University of Western Ontario, London, are also developing their departments of biology along similar lines and, although available qualified men are scarce at present, each year there is a decided improvement and this is largely due, probably, to the possibilities offered in this line of work. Men who have gained experience with the Department in connection with biological investigations are encouraged to continue the following year or years.

In addition to the permanent staff of the Branch, which consists of a Director, who is also Chief Biologist, a Hatchery Supervisor, or practical fish culturist, and two assistant biologists (temporary appointments), the personnel of the field staff was as follows: Professor J. D. Detwiler, Associate Professor of Zoology, University of Western Ontario, London; Messrs. G. Adams, M.A., Honour Biology and Chemistry, Queen's University, '29; W. H. R. Werner, M.A., Biology, Western University, '29; A. E. Allin, B.A., Biology and Medicine, University of Toronto, '29; S. J. Bochner, B.A., Biology and Medicine, University of Toronto, '29; H. J. Dignan, B.A., Honour Biology, University of Toronto, '29; E. O. Ebersole, B.A., Biology and Chemistry, Queen's University, '29; A. H. Loudon, B.A., Biology and Chemistry, Queen's University, '29; D. C. G. MacKay, B.A., Biology, Queen's University, '29; Roy F. Cain, Third year, Biology, University of Toronto; W. L. Dibbon, third year, General Science, University of Toronto; P. L. MacLachlan, third year, Honour Biology and Chemistry, Queen's University; W. R. Cameron, second year, Biology and Medicine, University of Toronto; H. J. Perkin, second year, Physiology and Biochemistry, University of Toronto; J. Savage, second year, Honour Biology, University of Toronto.

Biological Surveys—General:

In order to regulate our game and commercial fishing and to improve the fishing, and after all the only argument which will be instrumental in changing the views opposed to such regulation will be the practical one of more and better fish, it is absolutely necessary for us to know the conditions, (physical, chemical and biological), under which fish of all species live and thrive. The required knowledge is made possible to some extent at least by biological surveys of waters, which give us a clue to the fish best adapted to the waters, according to known criteria, either physical, chemical or biological. Such studies will help to increase our knowledge regarding the most suitable places to plant fish and the means we might adopt to maintain good fishing. The latter necessitates studies regarding size limits, which involve special studies of rate of growth, maturity and spawning conditions.

Furthermore, a knowledge of the entire life history of all species of fish is necessary for the best results in the culture of these species, either naturally or artificially. When we know conditions under which eggs, fry, fingerlings, yearlings and adults live, our problems in connection with fish culture will

be much easier than they are to-day. Life history studies form a part of the schedule of studies of fisheries' research departments of our universities."

During the past year the work of the investigators was organized according to districts which are supervised by District Superintendents.

The number of waters investigated in the Province to date from the standpoint of their limnobiology and suitability for fish of various species is as follows:

BIOLOGICAL SURVEYS OF WATERS

Algoma.....	32	Leeds.....	4	Rainy River.....	9
Brant.....	7	Lennox and Addington..	7	Renfrew.....	29
Bruce.....	30	Lincoln.....	2	Simcoe.....	66
Carleton.....	1	Manitoulin.....	3	Sudbury.....	28
Dufferin.....	5	Middlesex.....	6	Temiskaming.....	11
Durham.....	17	Muskoka.....	63	Thames Watershed....	472
Elgin.....	7	Nipissing.....	21	Thunder Bay.....	26
Frontenac.....	43	Norfolk.....	11	Victoria.....	10
Glengarry.....	1	Northumberland.....	26	Waterloo.....	14
Grey.....	28	Ontario.....	10	Welland.....	3
Haldimand.....	1	Oxford.....	14	Wellington.....	6
Haliburton.....	56	Parry Sound.....	54	Wentworth.....	4
Halton.....	12	Peel.....	4	York.....	3
Hastings.....	27	Perth.....	4	Huron.....	3
Kenora.....	11	Peterborough.....	32		
Lambton.....	2	Prince Edward.....	2	Total.....	1,233
Lanark.....	6				

The progress made in connection with these surveys may be better understood by the following comparisons:

Year	Number of waters studied	Number of Investigators
1925.....	21	1
1926.....	58	2
1927.....	233	5
1928.....	707	9
1929.....	214	18
	1,233	

The apparent drop between 1928 and 1929 is due to two factors. In the first place 472 waters of the Thames watershed were included in the 1928 total, and in 1929 the waters of the Grand River watershed were omitted, since only meagre and preliminary surveys were made. Furthermore, there has been a development of more specialized study apart from general biological surveys. The more specialized studies are described later. The number of investigators also affected the results, but this does not apply in 1928 and 1929, since groups of two worked together in connection with general biological surveys.

Biological Surveys—Particular:

Lake Erie:

The survey of the eastern end of Lake Erie commenced in 1928, under the joint auspices of the United States Bureau of Fisheries, the New York State Conservation Department, the Buffalo Society of Natural Sciences, the State of Ohio, and the Department of Game and Fisheries of the Province of Ontario, was extended this year to include the entire lake. In this connection the Department supplied a competent investigator, Mr. A. H. Loudon, B.A., of Queen's University, Kingston, to study more particularly the fishes of the lake past the larval stages, since studies in connection with prelarval stages were being undertaken by another investigator in connection with the same survey.

Provision was made for liberal facilities in the museum of Natural Sciences at Buffalo, and the "Shearwater," the boat used, was equipped with fairly adequate laboratory facilities, which permitted a great deal of work to be done on board. Mr. Loudon studied the post-larval stages of the fish, their distribution and economic importance, both from the marketable standpoint and as food for other fish. Forty-seven different species of fish were identified and eighty-six stomachs of the different species taken were analyzed for food composition.

In a summary at the end of his report Mr. Loudon makes the following remarks:

"1. The work of two summers has proven that the lake as a whole is remarkably free from pollution. There are isolated regions, harbours, etc., where pollution does occur, but nowhere in the 'open' lake is objectionable pollution found and the cry of the general populace, that the lake has been polluted by industrial waste, sewage, etc., is absolutely unfounded.

"2. Knowing that the chemistry of Lake Erie is the normal chemistry of lake water, it is not a surprising feature that plankton is prolifically abundant.

"Substantiating the findings of the previous summer and extending them over the entire lake, we found that, while the fish supply has diminished, the food supply has not, and that Lake Erie is easily capable of supporting a much larger fish fauna than now exists.

"3. Why then has there been such a rapid decline in Lake Erie Fisheries?

"Undoubtedly, the trouble can be traced and is still applicable to the fishermen themselves. I have talked with active and retired fishing boat captains in every port on the lake and with their men, and I find that 80 per cent. of them are honest enough to admit that they have themselves to blame. One has but to listen to accurate tales of tons of fish brought in by a single fishing tug, of which only a small percentage ever reached the market, of the wholesale burning of herring in the early days as a source of fertilizer, and of the long-continued practice of 'capture by any method,' but never think of preservation, to readily see that regardless of its phenomenal productivity, and ideal conditions, Lake Erie was doomed.

"Obviously, the only thing that can save the situation is 'uniform legislative action'."

Uniform Regulations on the Great Lakes:

Regarding uniform regulations on Lake Erie in particular, and the Great Lakes in general, a third Great Lakes Fisheries Conference was held at Lansing, Michigan, December 5th, 1928, in response to a call issued by Governor Fred W. Green. Representatives of the Federal Bureau of Fisheries at Washington, D.C., the States of Illinois, Indiana, Michigan, New York, Ohio, and Wisconsin, the Department of Game and Fisheries of Ontario and the Department of Marine and Fisheries of Canada, met in the executive office at Lansing, Michigan, for the purpose of discussing uniform regulations by lakes for the protection of the fishing industry on the Great Lakes.

The discussion included the following subjects:

Size limits on fish, species of fish protected, closed seasons, mesh of gill nets, mesh of pound nets, methods of measuring mesh, statistics, reversion of legal weight into legal length after satisfactory biological studies, reviews of biological studies for the year.

The outcome of these conferences has been the development of a better understanding among the various states of the United States and the Province

of Ontario, since each was in a position to explain its requirements and views. A certain amount of sacrifice is required on the part of all the fishermen involved, if the fishing industry is to be maintained, and the majority, it is believed, recognize this fact.

Long Point Bay, Lake Erie:

In addition to the activities of the Branch in connection with the Lake Erie Fisheries' Survey this year, a temporary fisheries' research laboratory was established at Port Dover, a port of considerable importance from the standpoint of commercial fishing. The field laboratory was established primarily for the purpose of making an intensive study of the limnobiology of Long Point Bay. These studies resulted in the capture and identification of fifty different species of fish inhabiting the bay, their abundance, age, sex, measurements, food, and the general limnology of their habitat. Knowing certain conditions at least, the Department is in a better position to regulate both game and commercial fishing carried on there.

Biological Survey of Trent River Watershed:

One of the field parties spent an entire summer making a biological survey of the chain of lakes included in that part of the Trent Canal System from Lake Simcoe to Lake Ontario as follows: Balsam Lake, Cameron Lake, Sturgeon Lake, Pigeon Lake, Buckhorn Lake, Deer Bay, Upper and Lower Stony Lake, Clear Lake, Trent River, Crow Bay, and Percy Reach.

From two to five days were spent on each body of water in the chain and during three weeks in September a more intensive study of Stony Lake was made, especially the upper part.

The general plan of study was similar to that used in limnobiological studies described in the report for 1928.

Grand River Watershed:

A very general survey of the Grand River System was made, as a point of departure for more intensive biological studies next year.

Fishways:

This year a systematic examination of obstructions along many of our water courses was made, in order to determine whether the present fishways are suitable or desirable and what steps should be taken to correct existing conditions injuriously affecting fish life. Before erecting a fishway, the height of the dam or obstruction must be considered, and also the possibility of a suitable location for the same. The standard fishway used by the Department appears, from the observations of our field men to be suitable. The feasibility of a fishway depends not only on the height of the obstruction, whether natural or artificial, but also on the importance and value of the migratory species in the stream. The available spawning and feeding grounds for migratory species, both above and below an obstruction, must be considered also, in determining the desirability of introducing a fishway.

Streams containing rainbow trout should not be obstructed, since they have a tendency to migrate downstream from smaller streams to the deeper

net portions of rivers, and into larger lakes while immature, but they return to the smaller streams to spawn, hence the necessity of keeping such streams free from obstructions.

On the other hand, providing the upper reaches of a system are well supplied with speckled trout and are separated by an obstruction, natural or otherwise, from the lower warmer reaches containing only coarse fish, it is not feasible to run the risk of infesting the trout waters with the coarser varieties of fish by opening up a fishway through the obstruction.

Fish Measurements:

Considerable work is being done in connection with measurements of fish, particularly commercial varieties, in order to convert "legal weight" into terms of "legal length." It is necessary to take thousands of measurements for each species at different periods of the year, their age, sex, sexual maturity, etc., in order to arrive at a fair and undisputed standard. In this connection, it has been found that a standard length used for a species in one of the Great Lakes, or, in one inland lake where commercial fishing is carried on, is not true for the same species of the same age in a different lake. In other words, the rates of growth of the same species differ in different lakes.

Fish Tagging:

Six hundred and thirty-five Lake Erie fish have been tagged including steelhead trout, whiefish, herring, white bass, yellow pickerel, blue pickerel, and small-mouthed black bass, in order to study their movements, distribution and rates of growth.

The tag, which is non-corrosive metal No. 3, is stamped on one side with the letters O.D.G.F. "Ontario Department (of) Game (and) Fisheries" and on the other with a serial number.

During the tagging process, the fish, which is preferably of illegal size, is retained in fresh water in a tank of convenient size in which to work on board boat. The tank has the bottom or sides, or both, marked off in inches and fractions thereof in order that the length of the fish tagged may be easily obtained and also its depth in inches. In order to determine the age of the fish tagged, two or three scales are removed from that portion of the body ventral to the dorsal fin, and the area from which the scales are removed is bathed with a solution of potassium permanganate. The weight of the fish is determined and it is then released.

By means of a circular letter the Canadian fishermen on Lake Erie have been informed regarding the methods to be adopted in making returns to the Department. A few returns have been made, but it is too premature to make a pronouncement regarding the results of these experiments.

Pollution:

Studies in connection with pollution require more specialized and intensive work. During the past year very little was done in this direction excepting investigations of local disturbances at Lindsay, Bridgeport, Owen Sound, and general observations made in the Spanish, Mattagami and Wabigoon rivers, during biological surveys. However, preliminary surveys help appreciably in

bringing untoward conditions regarding pollution of our lakes and streams to the notice of the Department and lead to more intensive studies and corrective measures.

Pound-Netting:

The subject of pound-netting, on which there has been considerable discussion and controversy between gill net fishermen on one hand and pound net fishermen on the other, was studied particularly in the vicinity of Rondeau, Lake Erie, where experimental nets with meshes in the backs of the cribs, ranging in size from $1\frac{3}{4}$ inches to $3\frac{1}{4}$ inches, have been run throughout the summer. In addition, the methods employed by the fishermen in their operation of pound nets were studied along the entire north shore of the lake.

To be ideal the crib of a pound net should have a mesh sufficiently large to allow all immature fish to escape. Such a condition also reduces the extent to which such fish are handled during the sorting process. It is not unreasonable to believe that if the above conditions are met, the mortality among the immature fish will be greatly reduced. However, it has been found that a large mesh in the crib gills a certain proportion of marketable fish which reduces their value to the fishermen, and that in some instances fish of legal size may escape through the meshes. At least another season's experimentation with nets is necessary before final recommendations can be made regarding the mesh or meshes of netting in the crib, in order to be satisfactory from most, if not from all angles.

Coarse Fish and Hoop-Netting:

The advisability of taking coarse fish from our waters requires a lengthy discussion, but an answer to the wholesale destruction of predatory fish resolves itself to this—if these fish are not interdependent with game fish, either directly or indirectly, or exist in such abundant numbers that it appears impossible for game fish to re-establish themselves, a reduction in the number of coarse fish is considered a wise policy. One reason for granting hoop net licenses is to help, theoretically, in maintaining a balance between game fish and coarse fish.

Certain fish like the gar-pike and dog-fish are of little value as food and are known to eat the more useful kinds. However, it is not wise to condemn any species without exact knowledge. An interdependence exists among the different forms of life in lakes or streams, which cannot be overlooked. For example, the species of minnow, namely, the golden shiner (*Notemigonus crysoleucas*) provides food for the black bass from the time the bass is large enough to eat fish. In fact, this species is used in the culture of bass in the United States, and this year we have made its culture an adjunct to our hatcheries. Nevertheless, if a nest is left unguarded by a bass which may wander temporarily from its nest, the golden shiner has been known to approach the nest and eat deposited spawn. This knowledge, however, would not lead us to exterminate the valuable food of the bass which this species of minnow provides. The same principle applies to the value of the immature sucker as food for pike, pickerel and bass.

Considerable criticism has come from anglers in regard to the operation of hoop nets in certain of our waters, and this led to a study of the effect of hoop-netting on game fish in the waters of the Rideau System and Lake Ontario.

Initial studies have not shown that hoop-netting as such interferes with our game fish before the first of May when the latter commence to move into shallow water. These studies were supplemented by statistics collected from hoop

fishermen throughout the Province regarding the composition of the daily catch by species, weight, etc. The information sought was outlined in the Annual Report of the Department of Game and Fisheries for 1928. Although there was some opposition, the assistance rendered by government overseers in explaining the forms and purpose of the information helped considerably to allay any suspicions or fears.

Studies in connection with hoop-netting are being extended to include a study of the spawning period of all species, the interdependence of coarse fish with game fish, and the most satisfactory mesh of netting to use which will protect the fish requiring protection. The ultimate aim of studies along these lines is to serve commercial and game fishing interests compatible with the principles of conservation. Such studies may show where the fishermen may fish with impunity and to advantage.

Hatcheries:

Our hatchery policy is a progressive one and has grown as a result of the need to replenish lakes and streams in order to supplement the work of nature in maintaining good fishing.

In 1926 the Province had six hatcheries devoted to the propagation of both game and commercial fish, and in that year eight additional hatcheries located in the Province under the control of the Dominion, and used exclusively for the propagation of commercial fish, were taken over. Provincial hatcheries, under provincial jurisdiction, were the first to go into the propagation of game fish intensively. Our holdings now include fifteen hatcheries, all of which may be used for propagation of one or more of the following species—speckled trout, rainbow trout, brown trout, bass, lake trout, pickerel, whitefish, and herring. In addition, temporary hatcheries have been in operation in connection with the artificial propagation of maskinonge.

Fish culture is a highly technical problem. By means of biological studies and experimentation, we are endeavouring by increments to make a careful study of each step in the process from the time the spawn and milt are taken until the fish are liberated in suitable waters. There is, after that, the infinitely important study, namely, the question of survival. In this connection, some work was done by Mr. H. C. White, while in the employ of the Biological Board of Canada, and the following significant statements were published in "A Preliminary Report on Trout Investigations in Forbes Brook in 1925 and 1926" in the Contributions to Canadian Biology and Fisheries, 1927, regarding survival and the method of seining for recovering the planted fry.

"Although a survival of only 27.5 per cent. is shown by the experiment on this creek, undoubtedly with improved methods in the planting, a much higher percentage might have been obtained with the same fry.

"In 1926 an attempt was made to expose equal numbers of fry to single classes of enemies or competitors. Four sections of Forbes brook were selected and screened with fine meshed screen. These sections were then seined to remove all the fish, but care had to be taken to conserve as much as possible the natural condition of the stream and the food organisms.

"Seining under such conditions is far more difficult than where it is not necessary to take such precaution, and I think could not be carried out with any degree of thoroughness except in specially favourable portions of a stream."

The entire problem requires considerably more experimentation, both intensively and extensively, under natural conditions or as near to natural conditions as possible for all species of fish handled.

Our own skilled hatchery officers collect spawn to a large extent in suitable fields and their work is carefully organized in advance. Commercial fishermen also collect spawn and are supplied with the necessary equipment and instructions regarding spawning methods, by the managers of hatcheries in the vicinity of the fishing grounds.

This year, a survey was made in regard to the methods used by the various fishermen, in connection with the spawning of whitefish in Lake Erie, and these methods were checked with the actual hatch. The percentage of fertile eggs sent in by each fishery was as follows: 63, 62.5, 53, 45, 75, 40, 50, 7, 39. The 39 per cent. was from fish taken in gill nets and the remainder from pound nets. In almost every case the method of spawning was reflected in the results.

It is relatively an easy matter to rear fish up to the feeding stage, but from the time fish commence to feed trouble begins. It is then that losses commence to be apparent, and in this connection there is no factor apart from the water supply of such importance as food. Trouble in rearing fish, providing the water supply is satisfactory, can be traced to improper diet. Fish culturists are far from reaching a universal agreement regarding what constitutes the most satisfactory diet for trout, but our knowledge is rapidly improving and when biologists, biochemists and physiologists combine to attack the problem, more exact information will be forthcoming. Considerations regarding food supply of fish involve cost, supply available, palatability and the health and vigour produced in the fish. Our own experience has shown that beef liver excels all other fresh meat foods in the diet of small fingerling trout, and that the cheaper products, namely sheep's plucks, pig liver, etc., may be fed satisfactorily to larger fish.

During the summer Professor J. D. Detwiler, Associate Professor of Zoology, University of Western Ontario, commenced a study of the relative importance of fresh meat, fish, and foods of animal and vegetable origin in the diet of trout.

Speckled Trout:

By consulting the records on the distribution of speckled trout for the year, it will be observed that there is a decrease in the total number planted, but by considering the class of fish distributed, the difference is more than compensated for, and this is shown by the following comparison:

SPECKLED TROUT DISTRIBUTION

1928 vs. 1929					
	<i>Eyed Eggs</i>	<i>Fry</i>	<i>Fingerlings</i> (1 inch to 4½ inches)	<i>Yearlings</i>	<i>Adults</i>
1928.....	60,000	475,000	1,134,600	.....	200
1929.....	30,000	.....	1,105,750	28,860	2,572

Furthermore, at the time of writing there is on hand at the Normandale and Mount Pleasant hatcheries a stock of approximately 90,000 yearlings, which is the product of fingerlings retained in rearing ponds from the spring of 1929. Losses among these at the Mount Pleasant hatchery amounted to less than one per cent. and at the Normandale Trout ponds the losses were insignificant.

The location of deep-seated springs in the vicinity of the Mount Pleasant ponds may undoubtedly lead to the possibility of retaining speckled trout in suitably constructed raceways or rearing ponds to the advanced fingerling and yearling stages.

The Fish Culture Branch has experienced a record year as regards the collection of speckled trout eggs. From our collecting field on Lake Nipigon in the neighbourhood of one million eggs were taken. In addition to this over six million eggs were collected from well-matured parent fish at Normandale Trout Ponds.

Rainbow Trout:

The distribution of this species for the year amounted to 35,030 fingerlings. At the time of writing there is on hand approximately 19,000 which is the product of fingerlings retained in rearing ponds from the spring of 1929. Losses among these at the Mount Pleasant hatchery amounted to approximately 12 per cent.

The parent stock are provided with a suitable natural pond in the lower waters of Normandale Creek, and a spawning tank has been provided at the inlet to the pond. The water in the lower Normandale hatchery has been found satisfactory for the rearing of rainbow trout to the fingerling stage, but unsatisfactory for speckled trout on account of high summer temperatures.

The Branch anticipates, providing the collection of eggs from our domesticated stock is successful, that more extensive plants of this species may be made in our waters. Their introduction, however, must be carefully controlled.

Brown Trout:

The success in rearing brown trout at Mount Pleasant hatchery is decidedly promising. This foreign species adapts itself to waters having temperatures which are too high for the satisfactory growth and development of speckled trout, and this is probably one reason for the success resulting at Mount Pleasant.

During the year a total of 2,590 adult brown trout were planted in Big Clear Lake, Frontenac; Eagle Lake, Peterborough; Nepahwin Lake, Sudbury; and Muskoka Lake, Muskoka District. The success of the introduction of this foreign species to these waters will be checked closely.

Prior to the development of biological surveys, very few plants of speckled trout were made in the County of Frontenac. Biological surveys, however, have led to experimentation along this line. In 1926 Clear Lake Creek (Kellar's Creek), a tributary of Big Clear Lake, was stocked with 4,000 speckled trout fry, for the first time. Trout were not formerly native to this stream. The original plant in Big Clear Lake Creek was a success and quite a number of legal-sized trout was caught this year. However, the tributary and outlet streams of the lake are more suitable for brown trout on account of the fact that optimum conditions for speckled trout prevail only at the headwaters.

The results of biological surveys carried on by the State of New York, over a period of years, tend to show that it is possible to extend the fishing possibilities in streams by the introduction of brown trout to those sections which are no longer suitable for speckled trout on account of high water temperatures, during the summer months, which are outside the optimum conditions for speckled trout. Brown trout were rarely encountered in streams having temperatures below 65°F. and occurred in greatest abundance in water having a temperature range between 68°F. and 75°F, according to New York

surveys on the Genesee River system. It may be possible then to extend the fishing range for trout in many waters in the Province of Ontario for the above reasons. The Fish Culture Branch, however, will not introduce brown trout into waters distinctly suited throughout their entire course for speckled trout, and the introduction of brown trout to our waters will be strictly controlled. The results of a number of plantings will have to be known before we shall be in a position to make a pronouncement regarding a definite stocking policy.

No extensive plants have been made with this species, but with the parent stock on hand and the success of this year's collection of eggs, which was in the neighbourhood of 900,000, more extensive plantings are assured.

Changes in the Kenora Fish Hatchery this year may permit of the rearing of brown trout fry to be distributed in suitable waters in the districts of Kenora and Rainy River. This work, however, is in the experimental stage only since in these districts trout streams are either non-existent or almost negligible.

Maskinonge:

The artificial propagation of maskinonge will be continued, and we expect better success when more spawners and milers are obtainable simultaneously on localized spawning grounds. So far only subsidiary or temporary hatcheries have been operated in the Pigeon River at Omemee, and at the entrance to Sturgeon Lake on the Scugog River.

Small-mouthed Black Bass:

Considering the extent of our holdings, it is not a difficult matter to rear fry, providing we have optimum conditions as regards breeders and temperature, but the successful rearing of bass fry to fingerlings or yearlings is we understand a universal difficulty, so far as output is concerned. Bass cannot be stripped of their eggs and milt in a manner similar to trout, pickerel, maskinonge, etc.; the egg production is small, and the output is small in comparison with the trout.

For the rearing of bass, comparatively large ponds containing the suitable and abundant food staples for fingerlings are necessary, but the cost of constructing and maintaining these ponds is tremendous. Furthermore, the difficulties encountered in securing favourable sites for such developments are manifold. In view of these considerations, it is necessary to view the maintenance of this species from other angles:—

1. Harvesting from Natural Waters:

This year the method of harvesting fingerlings and yearlings from suitable bass lakes was undertaken. The lakes tested out were: Four Mile Lake, County of Victoria; Green Lake and Golden Lake, County of Renfrew; Potspoon Lake, County of Frontenac; Trout Lake, District of Sudbury; Herridge Lake, District of Nipissing.

This primary step was taken in order to determine the practicability of closing any or all of the above lakes for the purpose of obtaining supplies of yearling bass for restocking purposes. Developments in this venture take time and considerable field work in advance, in order to locate the most favourable breeding areas, but on the whole this method of restocking appears feasible.

2. *The Lake on the Mountain (Natural Breeding Ground):*

The introduction of parent fish to the Lake on the Mountain has provided the Fish Culture Branch with a small supply of bass fry for cultural purposes, and pending a further development of the pond culture of bass, this lake will undoubtedly be a good source of supply for fry.

3. *Detached Rearing Stations:*

In addition to the common practice of pond culture, the Branch is making preparation for the detached pond method for rearing purposes. A pond of twelve acres in the vicinity of Ingersoll will be in readiness this year for the purpose. The pond is spring-fed, and has all the requirements for bass culture. Further construction is necessary to drain or lower the water into a collecting basin in which the bass fingerlings or yearlings may be collected in a most convenient manner for distribution. When this is done we shall have at least one station from which it is believed good results will be derived.

4. *Closed Season:*

The extension of the closed season for bass from June 15th to July 1st as developed by biological surveys will protect the bass more adequately, particularly in our warmer and more southerly waters. From the standpoint of protection this law is not all inclusive, since it was determined that many bass in the Georgian Bay spawn after July 1st. On the whole, our bass policy is similar in principle to that existing in the State of New York and *when all is said and done, it is believed that in the free waters of the Province natural restocking by bass is the most effective replenishment.*

Lake Trout, Herring, Whitefish and Pickerel:

With the exception of a slight decrease in this year's distribution of pickerel, there was an increased distribution of all the species named above.

Generally speaking, with the exception of lake trout, which may be retained in our hatcheries to fingerling grade, fry of the commercial species, such as whitefish, herring and yellow pickerel are planted. The Fish Culture Branch is not aware of any hatchery on this continent where these species are reared beyond the fry stage. No reason has yet been given why we should not plant fry of commercial species, since no accurate quantitative study of the survival of planted fry of these species has been made. The necessity and economy of rearing these to the fingerling stage has yet to be proven. Life history studies, however, by the fisheries' research departments of our universities for all species mentioned will undoubtedly cast more light on the subject of survival of artificially reared fish, on which there is little or no quantitative knowledge at the present time. The Fish Culture Branch will do everything possible to encourage studies of this nature.

Experiments carried on by the various states of the United States and the Federal Government to rear pickerel, whitefish and herring to the fingerling size have been shown to be impracticable.

Educational Propaganda:

Illustrated addresses pertaining to fish culture in Ontario and ways and means of preserving the fisheries were given by the Director of the Fish Culture Branch in a number of cities and towns of Ontario during the year. An extension

of this work is necessary not only for the purpose of explaining the advantages to be gained by fish culture and restocking, but also those derived by preserving forests, purity of streams, and ways of reclaiming streams for trout.

CLOSED WATERS

The following waters are closed to all fishing:

Fox Lake—Kenora, 12 miles from Kenora, in unsurveyed territory.

Beryl Lake—North half of section 26, Twp. Vankoughnet, Algoma.

Trout Lake—Twp. of Cosby, Sudbury.

Herridge Lake—Nipissing, for bass propagation.

Sucker Lake—Manitoulin Island, Twp. Assiginack, for propagation of bass.

Lake on the Mountain—Glenora, Prince Edward County, for hatchery purposes and bass propagation.

Eagle Lake—Peterborough County, Twp. Anstruther, for brown trout propagation.

The following are examples of special cases where game fish are protected and where fish propagation may be carried on at the discretion of the Department.

- (a) Quoting from the conditions governing licensees we have under condition 18 the following statement re *Bay of Quinte*:

“No one shall fish with nets during the months of June, July and August in that portion of the waters of the *Bay of Quinte*, lying westward of a line drawn from Green Point, in the County of Prince Edward, to the eastern limit of the Town of Deseronto, in the County of Hastings. That portion of the Bay of Quinte westward of a line drawn across the bay from Horse Point on the southern shore to the Lehigh Cement Works’ wharf opposite on the northern shore to the Belleville Highway Bridge is hereby set apart and reserved for fishing for hatchery purposes.”

Condition 19 states:

“No nets shall be set in that portion of the waters of *Georgian Bay* east of a line drawn northwesterly from the most westerly point of Moore’s Point; thence northwesterly to the most southwesterly point of Beausolill Island; then continuing northwesterly to Gin Island; to Smooth Island; to Whaleback Beacon; to Eshpadekong Island; to the easterly side of Pine Island; to Phillemore Rock; to Bass Group Islands; to Barbara Rock; to Campbell’s Rock; to the most easterly end of Sandy Island; to the westerly side of Pancake Island to the most westerly point of Franklin Island; to Twin Island; to Groundhog Island; to Hang Dog Island; to Champlain Island; to Tie Island; and to the mouth of French River.”

In regard to Gill nets authorized for *Lake Nipigon*, one of the conditions reads as follows:

“Gill nets authorized in this license shall not be set, placed or located within 1,000 yards of the mouth of any tributary, river, creek or stream, nor within two miles from Virgin Falls, and no nets shall be set on Speckled Trout spawning grounds or on grounds set aside for

the taking of spawn by the Department, viz.: West Bay, Chief Bay, Ombabika Bay, Black Sturgeon Bay, south of Long Point in South Bay, and those waters lying east of a line drawn from one mile west of Poplar Point to one mile west of High Hill River or in other waters as directed."

- (b) The following waters are closed to commercial fishing except in the instances noted:

Lake of the Woods—

Sabaskong Bay—(maskinonge sanctuary). The section of the bay from the boundary line of the Township of Mathieu and following a line 20° east of the true north and south.

Lobstick Bay—Closed especially for hatchery purposes. (Whitefish.)

{ *Clearwater Bay*—

{ *White Partridge Bay*—In this instance the line is drawn across from Zigzag Point south of 105P; thence to I.R., 38a.

{ *Little Vermilion Lake*—

{ *Pelican Lake*—Kenora (near Pelican on the C.N.R.); lake trout and pickerel propagation.

Rainy Lake—Stanjikoming Bay.

Nipigon Bay—Closed permanently. (Lake Superior).

Georgian Bay Waters:

Colpoy's Bay—Closed to commercial fishing permanently. Used for lake trout propagation.

Matchedash Bay—Closed July and August.

Killarney Bay—

McGregor Bay—

Whitefish Bay—

Entrance to the Spanish River—

Echo Lake—Township of Kehoe. Closed for hatchery purposes (pickerel.) Algoma District.

Mitchell's Bay of Lake St. Clair—Closed to commercial fishing during the months of May, June, July, and August.

Inner Bay of Long Point Bay (Lake Erie)—Closed to commercial fishing with the exception of seining and hoop netting, which must not be carried on during the spawning season of black bass. Fishing of this nature is prohibited during the months of May, June, July, and August.

Kagawong Lake, Manitou Lake, Mindemoya Lake, located on Manitoulin Island.

ACKNOWLEDGMENTS

In conclusion, I desire to publicly express my appreciation of the assistance and support which has been rendered to the Department throughout the year.

The members of the staff, both of the inside and outside service, have faithfully and zealously carried out any and all duties which have been allotted to them, and the spirit of loyal co-operation in the performance of the work has at all times been evident.

Our work has been made more pleasant and attractive by reason of the assistance rendered by the transportation companies and Fish and Game Protective Associations, the officers of which organizations having at all times co-operated with the Department in an earnest endeavour to secure a proper observance of the provisions of the Ontario Game and Fisheries Act.

All of which is respectfully submitted.

I am, Sir,

Your obedient servant,

D. McDONALD,

Deputy Minister of Game and Fisheries.

APPENDIX No. 1

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL WATERS—1929

<i>Speckled Trout Eyed Eggs</i>		<i>Speckled Trout Fingerlings</i>	
Thunder Bay:	Quantity	Addington:	Quantity
Moose Lake.....	7,500	Barnons Creek.....	2,000
Lower Twin Lake.....	7,500		
Upper Twin Lake.....	7,500	Algoma:	
Anderson Lake.....	7,500	Trout Lake Inlet.....	5,000
		Moose Lake.....	5,000
		Mongoose Lake.....	5,000
		Spruce Lake.....	5,000
		Loon Lake.....	5,000
		Batchewana River.....	5,000
		Sand River.....	5,000
		Wartz Lake.....	5,000
		Silver Creek.....	6,000
		Driving Creek.....	1,000
		Gull Lake.....	5,000
		Heyden Creek.....	5,000
		Coldwater Creek.....	1,000
		Root River.....	1,000
		Little Carp Creek.....	1,000
		Mountain Lake.....	5,000
		Fish Lake.....	5,000
		Michipicoten River.....	5,000
		Trout Lake.....	5,000
		Spring Creek.....	10,000
		Crystal Lake.....	5,000
		Harmony River.....	1,000
		Mud Creek.....	1,000
		Johnson's Creek.....	1,000
		Bridgeland River.....	1,000
		Hoyle's Creek.....	1,000
		Kent's Creek.....	1,000
		McQueen's Creek.....	1,000
		Cannon Creek.....	1,000
		Dunn's Creek.....	1,000
		Gravel River.....	1,000
		Iron River.....	1,000
		Stokely Creek.....	1,000
		Twin Lakes.....	1,000
		Victoria Creek.....	1,000
		White's Creek.....	1,000
		Brant:	
		Spring Lake.....	50
		Artificial Lake.....	250
		Bruce:	
		Langside Creek.....	10,000
		Muskrat Creek.....	10,000
		Otter Creek.....	500
		Main Creek.....	2,000
		Durham:	
		Cavan Creek.....	6,000
		Tyrone Creek.....	14,800
		Leskard Creek.....	2,000
		Gibson Creek.....	500
		Irwin Farrow's Creek.....	500
		Wm. Hooley's Creek.....	2,000
		Dufferin:	Quantity
		Esson's Creek.....	15,000
		Pine River.....	2,000
		Cemetery Creek.....	250
		Ferguson's Spring Creek.....	500
		Johnny Raw's Creek.....	500
		Credit River.....	51,250
		Humber River.....	3,000
		Nottawasaga River.....	10,000
		Elgin:	
		Caverly Creek.....	1,000
		Grange Hall Creek.....	1,000
		Frontenac:	
		Brule Lake.....	10,000
		Cataraqui Creek.....	1,000
		Beaver Creek.....	10,000
		Black Creek.....	10,000
		Grey:	
		Saugeen River.....	1,000
		Rocky Saugeen.....	2,000
		Sydenham River.....	10,000
		Maple Creek.....	5,000
		Swinton Park Creek.....	5,000
		Meadow Creek.....	5,000
		Jamieson's Creek.....	1,000
		Pepper Creek.....	10,000
		Rockside Park Creek.....	10,000
		Caseman's Creek.....	5,000
		Walter's Brook Trout Stream..	5,000
		Priddle's Spring Creek.....	1,000
		Middle-Wake Stream.....	1,000
		Sullivan Creek.....	5,000
		Huron:	
		Middleton Creek.....	1,000
		Johnston's Creek.....	600
		Springhill Creek.....	1,000
		Haliburton:	
		Bare Creek.....	500
		Fletcher Lake.....	2,000
		McCue Creek.....	9,000
		Beaver Lake.....	10,000
		Auger Lake.....	2,000
		Black River.....	1,000
		Halton:	
		Murray's Creek.....	3,000
		Acton Creek.....	1,000
		Sixteen Mile Creek.....	10,000
		Hastings:	
		Rawdon Creek.....	2,500
		Birds Creek.....	5,000
		Colburn's Creek.....	5,000
		Robertson Creek.....	4,000
		Little Papineau Lake.....	2,000
		Cleak's Lake.....	2,000
		Carlton's Creek.....	2,000
		Lambton:	
		Hungry Hollow Creek.....	300
		Middlesex:	
		Duncrief's Creek.....	10,000

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL
WATERS—1929—*Continued.*

<i>Speckled Trout Fingerlings—continued</i>		Peterborough:	Quantity
Manitoulin:	Quantity	Ouse River.....	2,000
Manitou River.....	10,000	Warr's Creek.....	5,000
Muskoka:		Lundy's Creek.....	1,000
Lake Vernon.....	10,000	Blizzard's Creek.....	2,000
Clear Lake.....	2,000	Peel:	
Bella Lake.....	5,000	Montgomery Creek.....	5,000
Muskoka River.....	2,500	Moffatt Stream.....	10,000
Big East River.....	5,000	Renfrew:	
Gipsy Bells Creek.....	10,000	Brennan's Creek.....	10,000
Holinshead Creek.....	5,000	Albert Lake.....	5,000
Black River.....	1,000	Crozier Creek.....	2,000
May's Lake.....	10,000	Diamond Lake.....	5,000
Fetterley's Creek.....	5,000	Byers Creek.....	5,000
East River.....	5,000	Corrigan Creek.....	10,000
Goodwin's Creek.....	5,000	Jesse's Creek.....	5,000
Casselman's Creek.....	5,000	Dam Lake Creek.....	5,000
Black Creek.....	10,000	Black's Creek.....	2,000
Nipissing:		Murphy Creek.....	1,000
North River.....	2,000	Kearney Creek.....	1,000
Duschesne Creek.....	20,000	Spring Creek.....	1,000
Baskie Creek.....	2,000	Mill Creek.....	10,000
Chippewa Creek.....	3,000	Simcoe:	
Doran's Creek.....	1,000	Gilmore Creek.....	500
Norfolk:		Black Ash Creek.....	5,000
Deer Lick.....	20,000	Silver Creek (Tp. Nottawasaga and Collingwood).....	2,000
South Stream.....	6,500	Warner's Creek.....	5,000
Hay Creek.....	500	Chewett's Creek.....	1,000
Northumberland:		Hawkestone Creek.....	3,500
Mutton's Creek.....	1,200	Seldom Seen Creek.....	2,000
Allen's Creek.....	1,000	Quantz Creek.....	2,000
Baltimore Creek.....	3,700	Silver Creek (Tp. Orillia).....	2,000
Cold Creek.....	3,000	Hospital Reservoir.....	500
Dartford Creek.....	2,000	Sudbury:	
Dark Creek.....	700	Massey Creek.....	2,000
Piper Creek.....	500	Rapid River.....	10,000
Burnley Stream.....	5,000	Trout Lake Creek.....	500
Philip's Creek.....	700	Mowat Creek.....	2,000
Spring Creek.....	1,000	Thunder Bay:	
Dawson Creek.....	2,000	Allen Creek.....	10,000
Hefferman's Creek.....	1,000	Allen Lake.....	10,000
Callahan's Creek.....	100	Silver Lake.....	10,000
Larry's Pond.....	2,000	Pearl River.....	10,000
Keeler Spring Creek.....	1,000	Six Mile Creek.....	10,000
Creek in Township of Haldimand	3,700	Three Mile Creek.....	10,000
Ashby's Creek.....	500	Currant River.....	10,000
Vardy's Creek.....	500	Rees Lake.....	10,000
Mallery Creek.....	1,000	McVicar's Creek.....	15,000
Ontario:		Neebing River.....	15,000
Black Creek.....	1,000	Coldwater Creek.....	10,000
Smalley's Creek.....	4,000	Spring Creek.....	10,000
Altona Mill Pond.....	2,000	Deception Lake.....	15,000
Bowerman Pond.....	5,000	Kowkash River.....	5,000
Mill Creek.....	500	Flint River.....	10,000
Parry Sound:		Johnson Creek.....	5,000
Deer Lake.....	5,000	Walker's Lake.....	10,000
South Sequin River.....	10,000	Lake Billie.....	10,000
Black Creek.....	5,000	Timiskaming:	
Murr's Creek.....	5,000	Black River Tributary.....	2,000
Barrett's Creek.....	5,000	Watabeag River.....	6,000
Jenkin's Creek.....	10,000	Hudson Creek.....	2,000
Thomas Creek.....	5,000		

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL
WATERS—1929—*Continued.*

<i>Speckled Trout Fingerlings—continued</i>		Nipissing:		Quantity
Timiskaming:— <i>Con.</i>	Quantity	Four Mile Creek.....		300
Metagami.....	2,000	North River.....		300
Bristol Creek.....	2,000	Lake Timagami.....		7,000
Croft's Creek.....	2,000			
Shaw's Creek.....	2,000	Oxford:		
Grassy River.....	2,000	Brooksdale Stream.....		250
Red Sucker River.....	2,000	Campbell's Creek.....		250
Kamascotia River.....	2,000			
Waterhen Creek.....	2,000	Parry Sound:		
Fuller's Creek.....	2,000	South River.....		500
Pearl Lake.....	2,000	George's Lake.....		100
Hayden Creek.....	2,000	Little East River.....		500
Waterloo:		Peterborough:		
Erbsville Creek.....	21,000	Little Ooze.....		500
Sunfish Lake Creek.....	2,150	Leary's Creek.....		100
Schantz's Creek.....	5,000			
Bamberg Creek.....	20,000	Peel:		
Bussard's Stream.....	5,000	Coffey's Creek.....		300
Lautenslager Creek.....	1,000			
Betzner's Creek.....	2,000	Renfrew:		
Mill Creek.....	1,000	Cormac Creek.....		500
Bearinger Creek.....	2,000	Jack Creek.....		500
Wilemsburg Stream.....	2,000			
Seagram's Creek.....	4,000	Simcoe:		
		Sturgeon River.....		500
Wentworth:		Pretty River.....		500
Twelve Mile Creek.....	5,000	Bear Creek.....		500
Waterdown Creek.....	2,000	Black Creek.....		500
		Rawn's Creek.....		250
Wellington:				
Martin's Creek.....	10,000	Thunder Bay:		
Credit River.....	32,000	Nipigon River.....		5,000
<i>Speckled Trout Yearlings</i>		Waterloo:		
Addington:		Greenfield Spring Creek.....		300
Shibagan Creek.....	300	Lautenslager Creek.....		500
		Moffatt Creek.....		500
Bruce:		Elmira Creek.....		500
Otter Creek.....	500			
Durham:		Wentworth:		
Mill Pond.....	200	Strabane Creek.....		500
Jamieson Pond.....	500	Dundas Creek.....		500
		McIntyre Creek.....		250
Dufferin:		York:		
Credit River.....	500	Mimico Fountain.....		10
Frontenac:		<i>Speckled Trout Adults</i>		
Shibley's Creek.....	500	Muskoka:		
McCausland Lake.....	500	Lake of Bays.....		772
Grey:		Nipissing:		
Holland Lake.....	2,000	Lake Timagami.....		500
Creek in Township of Egremont	600			
		Norfolk:		
Haliburton:		Spring Creek Mill Pond.....		200
Sawyer Lake.....	500			
		Sudbury:		
Muskoka:		Ramsay Lake.....		500
Oxtongue Lake.....	250			
Walker's Lake.....	500	Thunder Bay:		
Echo Lake.....	500	Nipigon River.....		500
Shoe Lake.....	100			
		Wellington:		
		Prison Farm Creek.....		100

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL
WATERS—1929—*Continued.*

Lake Trout Fry and Fingerlings

Great Lakes:	Quantity
Lake Ontario.....	5,789,000
Lake Superior.....	5,272,300
North Channel.....	400,000
Lake Huron.....	7,999,000

Algoma:

Trout Lake (24-R12).....	20,000
Big Basswood Lake.....	20,000
Herman Lake.....	10,000
Sand Lake.....	10,000
Carpenter Lake.....	20,000
McCarroll's Lake.....	5,000
Cloudy Lake.....	5,000
Island Lake.....	20,000
Achigan Lake.....	20,000
Trout Lake (Aweres).....	10,000
Trout Lake (Montgomery)....	10,000
Patton Lake.....	10,000

Frontenac:

Sharbot Lake.....	20,000
Crow Lake.....	10,000
White Lake.....	15,000
Trout Lake.....	15,000
Brule Lake.....	15,000
Canonto Lake.....	15,000
Mazinaw Lake.....	15,000
Palmerston Lake.....	15,000

Haliburton:

Kashamaganog Lake.....	15,000
Drag Lake.....	10,000
Gull Lake.....	20,000
East Lake.....	5,000
Mountain Lake.....	21,000
Hollow Lake.....	10,000
Kushog Lake.....	20,000
Halls Lake.....	15,000
Boskung Lake.....	25,000
Bare Lake.....	5,000
Stormy Lake.....	5,000
Wolf Lake.....	5,000
Pine Lake.....	5,000
Maple Lake.....	15,000
Twelve Mile Lake.....	10,000

Hastings:

Papineau Lake.....	15,000
Little Weslemkoon.....	10,000
Weslemkoon.....	15,000
Lake St. Peter.....	5,000
Eagle Lake.....	10,000
Salmon Lake.....	20,000
Island Lake.....	15,000
Devil Lake.....	15,000
Lavelle Lake.....	5,000

Kenora:

Eagle Lake.....	100,000
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Lanark:

Silver Lake.....	10,000
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Leeds:

Charleston Lake.....	50,000
Rideau Lakes.....	25,000

Muskoka:

	Quantity
Muskoka Lake.....	10,000
Lake Joseph.....	10,000
Lake of Bays.....	50,000
Lake Vernon.....	15,000
Fairy Lake.....	15,000
Mary Lake.....	15,000
Lake Rosseau.....	10,000
Oxtongue Lake.....	15,000
Clear Lake.....	10,000
Skeleton Lake.....	20,000
Walkers Lake.....	15,000
Pine Lake.....	5,000

Nipissing:

Turtle Lake.....	10,000
Trout Lake.....	20,000
Aylen Lake.....	10,000
Lowell Lake.....	5,000
Lake Timagami.....	280,000

Parry Sound:

Whitefish Lake.....	15,000
Ahmik Lake.....	25,000
Clear Lake.....	15,000
Sugar Lake.....	5,000
Sand Lake.....	10,000
Spring Lake.....	5,000
Maple Lake.....	5,000
Eagle Lake.....	5,000
Duck Lake.....	5,000
Round Lake.....	5,000
Georgian Bay.....	3,482,000
Otter Lake.....	15,000
Lake of Many Islands.....	5,000
Cariboo Lake.....	15,000
Little Deer Lake.....	5,000

Rainy River:

Straw Hat Lake.....	5,000
Mercury Lake.....	5,000

Renfrew:

Barry's Bay.....	15,000
Long Lake.....	15,000
Carson Lake.....	10,000
Pough Lake.....	15,000
Diamond Lake.....	10,000
Clear Lake.....	10,000

Sudbury:

Trout Lake.....	10,000
Ramsay Lake.....	20,000

Thunder Bay:

Lake Nipigon.....	1,375,000
Kashabowie Lake.....	10,000
Long Lake.....	20,000
Lac des Mille Lacs.....	100,000
Cloud Lake.....	10,000
Sturgeon Lake.....	50,000
Baril Lake.....	50,000

Timiskaming:

Twin Lakes.....	5,000
Crystal Lake.....	5,000
Larder Lake.....	15,000
Fairy Lake.....	5,000
Pike Lake.....	5,000

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL
WATERS—1929—Continued.

<i>Lake Trout Fry and Fingerlings—Continued</i>		Nipissing:	Quantity
York:	Quantity	Lake Nipissing.....	5,500,000
Lake Simcoe.....	120,000	Turtle Lake.....	20,000
		Talon Lake.....	100,000
		Pine Lake.....	20,000
		Trout Lake.....	100,000
		Lake Timagami.....	200,000
<i>Pickeral</i>		Northumberland:	
Addington:		Trent River.....	100,000
South Beaver Lake.....	15,000		
White Lake.....	15,000	Ontario:	
Salmon River.....	10,000	Lake St. John.....	50,000
Bay of Quinte.....	4,350,000		
Algoma:		Parry Sound:	
Echo Lake.....	1,630,000	Mill Lake.....	50,000
White Lake.....	15,000	Maganetawan River (Burton).....	200,000
Dundas:		Ahmic Lake.....	100,000
St. Lawrence River.....	100,000	Deep Bay and Wolf Lake.....	100,000
Frontenac:		Commenda Lake.....	30,000
Sharbot Lake.....	100,000	Pickeral River.....	100,000
Crow Lake.....	50,000	Isabella Lake.....	100,000
Loughborough Lake.....	200,000	Wilson Lake.....	50,000
Long Lake.....	25,000	Crane Lake.....	100,000
Milk Lake.....	50,000	Osler's Lake.....	50,000
Fourteen Island Lake.....	15,000	Cariboo Lake.....	50,000
Silver Lake.....	10,000	Bat Lake.....	100,000
Elbow Lake.....	10,000	Belle Lake.....	100,000
Grey:		Healey Lake.....	100,000
Black Lake.....	10,000	Maganetawan River (Croft)...	50,000
Grenville:		Prince Edward:	
Long Reach on Rideau.....	100,000	Lake Consecon.....	50,000
Hastings:		Rainy River:	
Stoco Lake.....	100,000	Rainy Lake.....	26,300,000
Moirs River.....	50,000	Wasaw Lake.....	5,000
Salmon River.....	50,000		
Kenora:		Renfrew:	
Lake Wabigoon.....	200,000	Norway Lake.....	25,000
Lake of the Woods.....	65,000,000	Barry's Bay.....	50,000
Eagle Lake.....	200,000	Pough Lake.....	25,000
Tawatinaw Lake.....	100,000		
Stanzhikima Lake.....	100,000	Russell:	
Sturgeon Lake.....	50,000	Castor River.....	50,000
Lambton:		Simcoe:	
Sydenham River.....	50,000	Lake Couchiching.....	100,000
Lake Huron.....	24,950,000	Severn River.....	100,000
Lanark:		Gloucester Pool Lake.....	50,000
Dalhousie Lake.....	100,000	Nottawasaga Bay.....	11,125,000
Christie Lake.....	150,000		
Mississippi River.....	100,000	Sudbury:	
Tay River.....	100,000	French River.....	200,000
Leeds:		Birch Lake.....	50,000
Rideau Lakes.....	150,000	Maple Lake.....	50,000
Bass Lake.....	50,000	Spanish Lake.....	200,000
Green's Lake.....	10,000	Timiskaming:	
Muskoka:		Lake Sesekinika.....	50,000
Muskoka Lake.....	600,000	Lake Abitibi.....	250,000
Lake Joseph.....	700,000	Larder Lake.....	50,000
Lake Rosseau.....	700,000	King Lake.....	15,000
Sparrow Lake.....	100,000	Margurue Lake.....	20,000
Muldrew Lake.....	100,000	Diamond Lake.....	20,000
		Fork Lake.....	20,000

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL
WATERS—1929—*Continued.*

<i>Pickereel—Continued</i>			
Victoria:	Quantity	Elgin:	Quantity
Youngs Lake.....	15,000	Pinafore Lake.....	1,000
York:		Grey:	
Lake Simcoe.....	100,000	Saugeen River.....	1,000
		Wilcocks Lake.....	1,000
<i>Whitefish</i>			
Great Lakes:	Quantity	Kent:	
Lake Superior.....	4,654,000	Mitchell's Bay.....	1,000
North Channel.....	9,000,000	Lambton:	
Lake Huron.....	43,500,000	Sydenham River.....	1,000
Lake Erie.....	34,505,000	Nipissing:	
Lake Ontario.....	45,000,000	Cache Lake.....	40
Kenora:		Lake Nipissing.....	2,000
Lake of the Woods.....	36,500,000	Oxford:	
Eagle Lake.....	500,000	Horner's Creek.....	1,000
Tawatinaw Lake.....	200,000	Parry Sound:	
Stanzhikima Lake.....	200,000	Ahmik Lake.....	1,000
Parry Sound:		Simcoe:	
Georgian Bay.....	67,300,000	Gloucester Pool Lake.....	1,000
Prince Edward:		Boyne River.....	1,000
Bay of Quinte.....	141,950,000	Sudbury:	
Rainy River:		Minisinakwa Lake.....	2,000
Rainy Lake.....	26,775,000	Cutler Lake.....	40
Thunder Bay:		York:	
Lake Nipigon.....	16,000,000	Lake Simcoe.....	1,000
Sturgeon Lake.....	1,000,000		
<i>Herring</i>		<i>Bass Yearlings</i>	
Great Lakes:		Frontenac:	
Lake Erie.....	8,085,000	Sharbot Lake.....	160
Lake Ontario.....	3,500,000	Crow Lake.....	50
Haliburton:		Crotch Lake.....	50
Paudash Lake.....	100,000	Silver Lake.....	50
Prince Edward:		West Rideau Lake.....	50
Bay of Quinte.....	10,995,000	Fishing Lake.....	30
<i>Bass Fry</i>		Hastings:	
Addington:		Stiner's Lake.....	30
South Beaver Lake.....	5,000	Lanark:	
White Lake.....	5,000	Dalhousie Lake.....	50
Frontenac:		Otty Lake.....	50
Clear Lake.....	5,000	Christie Lake.....	50
Sydenham Lake.....	5,000	Nipissing:	
Green Bay Lake.....	5,000	Cache Lake.....	25
Long Lake.....	5,000	Northumberland:	
Victoria Lake.....	5,000	Trent River.....	60
Haliburton:		Prince Edward:	
Paudash Lake.....	5,000	Consecon Lake.....	100
Hastings:		Peterborough:	
Stoco Lake.....	5,000	Stony Lake.....	125
Moirs River.....	5,000	Renfrew:	
Bass Lake.....	5,000	White Lake.....	50
North Lake.....	5,000	Simcoe:	
<i>Bass Fingerlings</i>		Lake Couchiching.....	100
Bruce:			
Cameron Lake.....	1,000		

SPECIES AND QUANTITIES OF FISH PLANTED IN PROVINCIAL
WATERS—1929—*Continued.*

<i>Bass Yearlings—Continued</i>		Timiskaming:		Quantity
Victoria:	Quantity	Hollinger Mine Waters.....		30
Sturgeon Lake.....	90			
Cameron Lake.....	125			
<i>Bass Adults</i>		<i>Brown Trout Adults</i>		
Nipissing:		Frontenac:		
Cache Lake.....	35	Big Clear Lake.....		400
Sudbury:		Peterborough:		
Windy Lake.....	60	Eagle Lake.....		1,000
Cutler Lake.....	50			
<i>Rainbow Trout Fingerlings</i>		Muskoka:		
Halton:		Muskoka Lake.....		800
Bronte Creek.....	10,000	Sudbury:		
Simcoe:		Nepahwin.....		390
Stony Creek.....	5,000			
Sudbury:		<i>Maskinonge Fry</i>		
Pumphouse Creek.....	5,000	Victoria:		
Geneva Creek.....	5,000	Pigeon River.....		20,000
Windy Creek.....	10,000			

APPENDIX NO 2—DISPOSITION OF APPLICATIONS FOR FISH, 1929

	No. of Applications	No. Filled	No. Cancelled Unsuitable	No. Cancelled Duplicates	No. Suitable	No. Brought Forward to 1930 (Biological Studies Necessary)
Bass.....	236	51	23	1	137	24
Herring.....	20	13	...	...	7	...
Lake Trout.....	230	174	14	2	20	20
Pickrel.....	154	98	30	3	8	15
Rainbow Trout.	20	7	9	...	2	2
Speckled Trout.	524	332	63	8	59	62
Whitefish.....	65	58	...	4	3	...
Brown Trout...	8	4	1	0	1	2
Maskinonge....	9	1	3	...	4	1
Miscellaneous..	2	...	1	...	1	...
	1,268	738	144	18	242	126

APPENDIX NO. 3—DISTRIBUTION OF

Length of Fish in Inches	Eyed Eggs	Age in			
		3	3½	4	5
	30,000				
1.....		701,850	8,000		
1½-2.....				20,000	
2-3.....				38,000	
2-3½.....					105,050
2-4½.....					
2½-3.....					
3.....					7,600
3-3½.....					
3-4.....					
3-4½.....					
4.....					
4-4½.....					
4½.....					
4½-6½.....					
12-20.....					
	30,000	701,850	8,000	58,000	112,650

APPENDIX NO. 4—DISTRIBUTION OF FISH ACCORDING TO SPECIES, 1926-1929

	1926	1927	1928	1929
Lake Trout Fry and Fingerlings.....	8,501,000	21,465,375	22,806,090	26,238,300
Speckled Trout Eyed Eggs.....				30,000
Speckled Trout Fry and Fingerlings...	1,085,300	1,444,050	†1,669,600	*1,105,750
Speckled Trout Yearlings.....				28,860
Speckled Trout Adult.....	300	606	200	2,572
Rainbow Trout Fry and Fingerlings...	1,800		419	*35,030
Brown Trout Adult.....				2,590
Black Bass Fry.....			50,000	60,000
Black Bass Fingerlings.....	12,500	5,425	10,833	15,080
Black Bass Yearlings.....				1,245
Black Bass Adults.....	1,569		90	145
Maskinonge Fry.....		68,000	53,000	20,000
Pickarel Fry.....	13,820,000	223,945,000	155,921,750	147,155,000
Whitefish Fry.....	260,575,000	448,789,750	346,172,000	427,084,000
Herring.....	11,225,000	18,410,000	17,830,000	22,680,000
	295,222,469	714,128,206	544,513,982	624,458,572

†Including 60,000 eyed eggs.

*Fingerlings only.

SPECKLED TROUT—1929

months				Yearlings	Adults	Total
6	6½	7	7½			
						30,000
						709,850
						20,000
						38,000
29,000						134,050
		53,250	4,900			58,150
	42,000					42,000
2,000	2,000					11,600
2,500						2,500
		2,000				2,000
		10,000				10,000
100						100
73,500						73,500
	4,000					4,000
				28,860		28,860
					2,572	2,572
107,100	48,000	65,250	4,900	28,860	2,572	1,167,182

APPENDIX NO. 5—NUMBER OF SHIPMENTS

	1928	1929
Speckled Trout Eyed Eggs.....		4
Speckled Trout Fry.....	111	...
Speckled Trout Fingerlings.....	166	277
Speckled Trout Yearlings.....		42
Speckled Trout Adults.....	2	9
	279	332
Lake Trout.....	134	174
Pickrel.....	125	98
Whitefish.....	50	58
Herring.....	13	13
Bass Fry.....	8	13
Bass Fingerlings.....	42	14
Bass Yearlings.....		22
Bass Adults.....	3	2
	53	51
Maskinonge.....	2	1
Rainbow Trout Fingerlings.....	2	7
Brown Trout.....		4
Total number of shipments.....	658	738

APPENDIX
GAME AND FISHERIES

Statistics of the Fishing Industry in the Public Waters
EQUIP

No	District	No. of Men	Tugs			Gasoline Launches		Sail and Row Boats		Gill Nets	
			No.	Tons	Value	No.	Value	No.	Value	Yards	Value
					\$		\$		\$		\$
1	Kenora and Rainy River Districts....	311	....			142	79,275	128	5,310	345,315	50,626
2	Lake Superior.....	392	15	480	67,800	85	46,540	63	5,760	1,106,325	107,241
3	North Channel.....	165	12	347	72,500	35	25,050	61	6,085	443,608	52,615
4	Georgian Bay.....	598	29	772	209,740	161	117,820	114	6,260	1,574,607	163,384
5	Lake Huron.....	309	18	508	113,840	74	63,425	36	3,185	1,057,300	139,436
6	Lake St. Clair, St. Clair and Detroit Rivers.....	142	....			39	13,385	82	4,807	.....	.....
7	Lake Erie and Upper Niagara River...	802	30	730	262,800	156	171,870	140	8,935	1,414,342	215,729
8	Lake Ontario, Lower Niagara and St. Lawrence Rivers.....	731	....			243	118,107	207	9,257	1,162,370	110,881
9	Sundry Inland Waters.....	593	9	221	41,800	54	29,450	174	9,022	346,150	31,627
	Totals.....	4,043	113	3,058	768,480	989	664,922	1,005	58,621	7,450,017	871,539

APPENDIX
QUANTITIES OF

No.	District	Herring	Whitefish	Trout	Pike	Pickere1 (Blue)	Pickere1 (Dore)
		lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
1	Kenora and Rainy River Districts.....	.....	710,280	117,175	858,444	19,815	1,095,039
2	Lake Superior.....	2,525,753	389,330	1,746,607	6,698	.....	92,728
3	North Channel.....	9,861	295,341	412,447	60,460	.....	133,652
4	Georgian Bay.....	22,035	1,089,975	1,622,443	84,258	260	89,763
5	Lake Huron.....	550,936	204,761	1,680,338	475	.....	139,777
6	Lake St. Clair, St. Clair and Detroit Rivers.....	.....	350	.....	22,183	10,715	25,825
7	Lake Erie and Upper Niagara River.....	360,962	1,267,485	3,155	30,516	2,538,256	134,977
8	Lake Ontario, Lower Niagara and St. Lawrence Rivers.....	1,394,412	843,095	555,679	128,589	13,592	31,814
9	Sundry Inland Waters.....	48,736	1,358,397	116,875	119,689	472	245,400
	Totals.....	4,912,695	6,159,014	6,254,719	1,311,312	2,583,110	1,988,975
	Values.....	\$ c. 294,761.70	\$ c. 800,671.82	\$ c. 813,113.47	\$ c. 91,791.84	\$ c. 154,986.60	\$ c. 258,566.75

No. 6

DEPARTMENT, ONTARIO

of Ontario, for year ending December 31st, 1929

MENT

Seine Nets			Pound Nets		Hoop Nets		Dip and Roll Nets		Night Lines		Spears		Freezers and Ice Houses		Piers and Wharves		Total
No.	Yards	Value	No.	Value	No.	Value	No.	Value	No. Hooks	Value	No.	Value	No.	Value	No.	Value	
		\$		\$		\$		\$		\$		\$		\$		\$	\$
			42	13,000	58	3,040							120	37,630	91	13,615	202,496
			59	29,150					22	100			26	13,750	34	11,175	281,516
			136	63,200									29	10,605	29	23,000	253,055
7	1,300	1,350	94	112,050	31	715	1	6	35,885	4,088	7	38	55	32,685	57	19,570	667,706
			117	71,150					14	23			41	17,575	14	9,175	417,809
27	5,395	3,338	189	21,930					5,600	340			31	12,125	15	3,850	59,775
41	11,900	9,335	585	326,900	22	410	5	25	4,900	147			91	143,638	55	29,625	1,169,414
14	1,745	1,630			563	18,990	7	1,019	9,830	390			45	10,350	22	3,010	273,634
62	6,607	6,904	34	11,280	218	7,990	66	359	3,925	278	68	488	58	11,725	24	3,175	154,098
151	26,947	22,557	1,256	648,660	892	31,145	79	1,409	60,176	5,366	75	526	496	290,083	341	116,195	3,479,503

No. 7

FISH TAKEN

Sturgeon	Eels	Perch	Tullibee	Catfish	Carp	Mixed Coarse	Caviare	Total	Value
lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	\$ c.
22,849		12,850	254,582	75,939	10,443	249,871	900	3,428,187	356,427 65
1,306		150	2,744	125	1,119	89,989		4,856,549	446,129 48
12,320		7,569			819	353,017		1,285,486	133,754 83
2,299		5,894	94,932	3,698	67,804	146,138	34	3,229,533	389,003 33
9,926		35,776	213,222	974	2,631	101,435	1,013	2,941,264	322,645 66
12,886		62,224		26,194	60,993	147,736	340	369,446	25,880 91
27,076	12	5,689,210		116,950	194,603	895,830	1,073	11,260,105	766,995 72
2,968	74,612	154,610	1,940	122,617	89,450	277,649		3,691,027	321,414 29
29,664	15,332	33,870	130,211	71,734	181,862	441,158	295	2,793,695	292,030 34
121,294	89,956	6,002,153	697,631	418,231	609,724	2,702,823	3,655	33,855,292	
\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.
48,517 60	7,196 48	360,129 18	48,834 17	33,458 48	30,486 20	108,112 92	3,655 00		3,054,282 21

APPENDIX No. 8

COMPARATIVE STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO

Kind	1928	1929	Increase	Decrease
	lbs.	lbs.	lbs.	lbs.
Herring.....	5,300,519	4,912,695	.....	387,824
Whitefish.....	5,823,448	6,159,014	335,566	.....
Trout.....	6,659,465	6,254,719	.....	404,746
Pike.....	1,246,799	1,311,312	64,513	.....
Blue Pickerel.....	2,149,647	2,583,110	433,463	.....
Pickerel Dore.....	2,001,288	1,988,975	.....	12,313
Sturgeon.....	139,197	121,294	.....	17,903
Eels.....	122,797	89,956	.....	32,841
Perch.....	4,693,402	6,002,153	1,308,751	.....
Tullibee.....	1,030,426	697,631	.....	332,795
Catfish.....	434,808	418,231	.....	16,577
Carp.....	724,038	609,724	.....	114,314
Coarse Fish.....	3,051,459	2,702,823	.....	348,636
Caviare.....	4,411	3,655	.....	756
Total.....	33,381,704	33,855,292	*473,588	.....

*Net increase.

APPENDIX No. 9

STATEMENT OF THE YIELD OF THE FISHERIES OF THE PROVINCE OF ONTARIO FOR YEAR 1929
COMPILED FROM THE FISHERMEN'S ANNUAL RETURNS

Kind	Quantity	Price per Pound	Estimated Value
	lbs..	\$ c.	\$ c.
Herring.....	4,912,695	0 06	294,761 70
Whitefish.....	6,159,014	13	800,671 82
Trout.....	6,254,719	13	813,113 47
Pike.....	1,311,312	07	91,791 84
Blue Pickerel.....	2,583,110	06	154,986 60
Pickerel Dore.....	1,988,975	13	258,566 75
Sturgeon.....	121,294	40	48,517 60
Eels.....	89,956	08	7,196 48
Perch.....	6,002,153	06	360,129 18
Tullibee.....	697,631	07	48,834 17
Catfish.....	418,231	08	33,458 48
Carp.....	609,724	05	30,486 20
Coarse Fish.....	2,702,823	04	108,112 92
Caviare.....	3,655	1 00	3,655 00
Total.....	33,855,292	....	3,054,282 21

APPENDIX No. 10

VALUE OF ONTARIO FISHERIES FOR A PERIOD OF TWENTY YEARS, 1910 TO 1929, INCLUSIVE.

Year	Value	Year	Value
	\$ c.		\$ c.
1910.....	2,348,269 57	1920.....	2,691,093 74
1911.....	2,419,178 21	1921.....	2,656,775 82
1912.....	2,842,877 09	1922.....	2,807,525 21
1913.....	2,674,686 76	1923.....	2,886,398 76
1914.....	2,755,293 11	1924.....	3,139,279 03
1915.....	3,341,181 41	1925.....	2,858,854 79
1916.....	2,658,992 43	1926.....	2,643,686 28
1917.....	2,866,424 00	1927.....	3,229,143 57
1918.....	3,175,110 32	1928.....	3,033,944 42
1919.....	2,721,440 24	1929.....	3,054,282 2

Report of Special Committee

ON THE

Game-Fish Situation

Hon. Finlay Macdiarmid, Chairman

Prof. B. A. Bensley, University of Toronto

C. N. Candee, Ontario Anglers' Association

PRINTED BY ORDER OF
THE LEGISLATIVE ASSEMBLY OF ONTARIO

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1930

TO THE HONOURABLE W. D. ROSS,

Lieutenant-Governor of the Province of Ontario.

MAY IT PLEASE YOUR HONOUR:

I have the honour to submit herewith, for the information of Your Honour and the Legislative Assembly, the report of a Committee, composed of Honourable Finlay G. Macdiarmid, formerly chairman of the Fish and Game Committee of the Ontario Legislature, Professor Benjamin A. Bensley, in charge of the Department of Zoology of the University of Toronto, and Mr. Charles N. Candee, of The Ontario Anglers' Association, appointed by the Honourable Charles McCrea, Minister of Mines and Minister in charge of the Game and Fisheries Department, to enquire into the game-fish situation in Ontario.

I have the honour to be,

Your Honour's most obedient servant,

C. MCCREA,

Minister of Mines.

Toronto, March 27, 1930.

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SPECIES OF FISHES CONSIDERED IN THIS REPORT

Long-nose gar	<i>Lepidosteus osseus</i> Linnaeus
Dogfish	<i>Amia calva</i> Linnaeus
Brown trout	<i>Salmo fario</i> Linnaeus
Steelhead trout	<i>Salmo gairdneri</i> Richardson
Rainbow trout	<i>Salmo irideus shasta</i> Jordan
Lake trout	<i>Cristivomer namaycush</i> Walbaum
Speckled trout	<i>Salvelinus fontinalis</i> Mitchill
Sucker	<i>Catostomus especially commersonnii</i> Lacépède
	<i>Moxostoma</i>
Carp	<i>Cyprinus carpio</i> Linnaeus
Catfish	<i>Ameiurus melas</i> Rafinesque
	<i>Ameiurus nebulosus</i> Le Sueur
Pike	<i>Esox lucius</i> Linnaeus
Maskinonge	<i>Esox masquinongy masquinongy</i> Mitchill
Perch	<i>Perca flavescens</i> Mitchill
Pickereel	<i>Stizostedion vitreum</i> Mitchill
Small-mouthed black bass	<i>Micropterus dolomieu</i> Lacépède
Large-mouthed black bass	<i>Aplites salmoides</i> Rafinesque
Sunfish	<i>Eupomotis gibbosus</i> Linnaeus
Rock bass	<i>Ambloplites rupestris</i> Rafinesque
Ling	<i>Lota maculosa</i> Le Sueur

REPORT OF THE
**ONTARIO GOVERNMENT GAME-FISH
COMMITTEE**

1928-30

**Appointed to enquire into certain phases of
The Game-Fish Situation in Ontario, and
to Recommend Measures of Improvement.**

TO THE HONOURABLE CHARLES MCCREA,
Minister of Mines.

SIR,—The Ontario Government Game-Fish Committee, appointed at your instance in May, 1928, to enquire into the game-fish situation in Ontario, begs to report as follows:—

INSTRUCTIONS:

The Committee was given verbal instructions to make enquiries into and to report upon certain phases of the game-fish situation, the nature of the instruction being more fully set forth in the following public announcement made under date of May 24th, 1928:—

“Honourable Charles McCrea, Minister of Mines, presiding over the Game and Fisheries Department, announced to-day that he had requested a Committee of three, consisting of Hon. Finlay G. Macdiarmid, M.P.P., Chairman of the Fish and Game Committee of the Legislature, Professor Benjamin A. Bensley in charge of the Department of Zoology of The University of Toronto, and Mr. Charles N. Candee, of The Ontario Anglers' Association, to investigate into matters pertaining to game-fish in the Province. The work of this Committee, independent of the Department, will be to enquire generally into all phases of depletion and to suggest methods of improvement which can be advantageously worked out for the improvement of game-fishing.

The Department has for some years been carrying out work along these lines and it may be that this Committee, looking at matters from a different angle, can contribute beneficial suggestions which, in co-operation with activities of the Department, can improve conditions.

The Committee is not in the nature of a Commission with specific directions to report on the general question of fisheries but will look into the hatchery work being carried on, the methods at present employed, the views as to suitability of streams and generally is to make such concrete proposals from a public standpoint as will make for improved conditions.”

Concerning the interpretation placed by the Committee upon what should be the extent and purview of its normal or expected functions, the lines along which information might be effectively sought, and the general content and outlook of the report to be submitted, some preliminary discussion and explanation is perhaps in order.

It will be evident even from superficial examination that the game-fish situation in Ontario may be viewed from many angles. Though specifically

entrusted only with a study of the case from a more external or independent point of view and with the task of bringing in suggestions of constructive value only in that relation, the Committee has nevertheless often been at a loss to distinguish between *productive* and *unprofitable* lines of enquiry, or again between matters more immediately pertinent to the enquiry and others more properly referable to the administration. If we consider, for example, the question of depletion, concerning which there has been a great deal of discussion, it will be readily understood that in addition to the difficulties and uncertainties in the way of obtaining satisfactory information, there are various interpretations which can and have been placed on possible causes. These causes, i.e., the conditions which have operated so as to bring about a serious reduction in the native stocks of wild animals, will naturally include any circumstance connected directly or indirectly with the removal of animals, any disturbance of natural balances, and any alteration of life conditions in injurious directions. They will also include any lapse or failure of legislative machinery which under existing conditions is necessary to protect or replenish supply. Depletion, however, is but one phase of the situation, in which will be found literally hundreds of minor factors, more or less closely interwoven, and having in one way or another a possible bearing upon the case.

So far as the Committee has been able to ascertain the chief elements in the game-fish situation in Ontario, most of which have been more or less under public discussion, are as follows:

(1) *Are the Game-fish Resources in a Critical Position?*

The people of Ontario have undoubtedly had a very great confidence in the capability of a large and even predominating portion of the Province to sustain game-fishing. This confidence, born of the realization that we possess relatively enormous wild areas of inaccessible and in large measure unoccupied country affording natural protection to wild life, has of late been badly shaken by the further realization that through the development of transport facilities, industry, and tourist trade the picture has become rather suddenly and materially changed. A question which for a long time has been foremost in the minds of some of our sportsmen and conservationists, namely, as to how long the native game-fish resources will hold out, has now become one of much more general and public concern.

(2) *Fish Cultural Efficiency:*

Since fish cultural processes have become well established, the anxiety that is being felt as regards depletion of native stocks is naturally followed by consideration of the needs and possibilities of artificial replacement. In this issue, there is not only the physical and historical setting of the fish hatcheries in relation to the area served, but also other considerations which, in the present instance, have attracted even greater public notice. One of these is a general criticism or doubt as to the final effectiveness of artificial propagation, the other a greatly increased appreciation of the importance of the game-fish element in general, whether as regards hatchery production, or in other respects.

(3) *The Freedom of Taking Wild Life:*

The Province of Ontario is still young enough and also from the point of view of development old enough to present at this time exactly that

contrast which, so far as can be traced elsewhere, has always come about as a result of the original freedom of taking wild life being brought into opposition to growing public realization of the needs of conservation and management. People who are at first in a pioneering position easily and rightly become reliant upon natural sources of food supply. But their successors also retain with tenacity the freedom so acquired, and do not, except on the basis of greatly improved prospects or education, willingly concede the necessity of conservation, and very often at least do not realize the directions in which their best interests lie. This condition has a great many extensions and consequences, and is foundational to questions of public education and of respective rights and privileges as between resident and non-resident populations, settlers and tourists, sport and commercial fishermen.

(4) *Game-fish Protection:*

Of the many ramifications of this issue, there is one at the present moment which probably more than any other is causing public concern. Due to the activities of certain lawless or perhaps sometimes thoughtless elements of the resident population, infractions of game laws take place in situations, at times of the year, and under conditions of climate and terrain which combine to make detection or prevention difficult or impossible. Native stocks of game-fishes may be seriously reduced. On the other hand, within at most a few months these same stocks of fishes will be relied upon by summer sportsmen and vacationists as well as by many people who either profit by or may perhaps be dependent upon tourist trade. Such conditions exist in many communities more or less isolated in the off season, and, in the opinion of many, constitute the main problem in so far as protective service is concerned.

(5) *Relation of the Public to Protective Service:*

In much of the discussion which has been going on with reference to the protective service and its possible improvement, it is evident that while there are plenty of constructive ideas to be considered, there are also many indications of wrong perspectives which more or less obscure the true situation. Many people expect to profit in one way or another from the fishing which goes on in public waters, but do not expect to participate in the responsibility of seeing that the supplies are not wasted or plundered. This attitude might be accepted as an ordinary manifestation of human nature were it not for the fact that many people seem to expect protective service of a localized and almost urban type, notwithstanding that the Province has an enormous area to be managed, and that we are still in the stage of depending upon natural resource revenue to a considerable extent, and that we have decided limitations in the matter of improved or substitutive revenue which might under other circumstances be applied to the purpose. This comment, however, is not made in a spirit of criticism, but simply to point out that an important element in the game-fish situation is to establish a foundation on which the responsibilities, physical difficulties, and possibilities of protective service may be fairly and reasonably discussed.

(6) *The Basic Factors in Game-fish Management:*

It is observable that in practically all discussions of means or methods of management a great deal of emphasis is placed upon the personal factor

rather than upon the building up of an efficient service system. Many of the difficulties which beset a service organization, however, are of a technical nature in that proper procedure is not simply a matter of judgment or decision but must be based upon detailed knowledge of natural facts, in this instance, of facts concerning the growth and reproduction of fishes and the conditions necessary for success. For this reason, and because of the growing importance of technical information the incorporation into fishery service of scientific components becomes an important element of the game-fish problem.

(7) *The Province and Provincial Fisheries Service:*

It is difficult to sum up in a few words the particular setting of game-fish service in the Province. Ontario presents very great contrasts as between long established and new development, respectively south and north. In general, as regards the utilization and control of game-fishes, the Province is in an intermediate position. The changes which are taking place are in most respects analogous to those which have been gone through elsewhere, but there are differences so pronounced, especially as regards the area to be served, the extent of natural resource development and government service required, efficiency and economy of operation to warn against accepting current procedures elsewhere as models to follow.

Our development has also a particular facies in relation to the position of Ontario as a Canadian Province and the historical setting implied by the British North America Act, the original fisheries authority of the Dominion Government, and the subsequent reference or transfer of authority to the Province. As a particular feature of this setting, we have now the Provincial Department of Game and Fisheries, which for present purposes may be described as both an administrative and public service organization, and which for over a quarter of a century has been engaged in the establishment and maintenance of a system designed to give service along protective, fish cultural and other lines significant in the present relation.

In making an enquiry into the game-fish situation, the Committee has considered the various issues as outlined above mainly on the basis of independent external observation and by careful analysis of such information and representations as could be obtained from public sources. No attempt whatsoever has been made to examine into the administrative procedure or to criticise or justify any particular phase of the fisheries service organization. On the contrary, the whole matter has been considered in an objective relation, having in view the establishment of a better understanding of game-fish questions and of plans or policies for improvement of game-fish management.

SOURCES OF INFORMATION:

While no formal sittings were arranged throughout the Province, the Committee visited a number of places, including Normandale, Mount Pleasant, Ingersoll, Southampton, Wiarton, Horning's Mills, Orono, Omemee, Lindsay, Peterborough, Marmora, Madoc, Glenora, Picton, Belleville, Kingston, Sharbot Lake, Newboro, Battersea, Ottawa, Sault Ste. Marie, Port Arthur, Fort William and Kenora. At most of these places, meetings were arranged by local interests representing different phases of the game-fish situation, whereby, apart from formal recommendations submitted on behalf of Associations, it was made possible to have open friendly discussions concerning local sentiment in different parts of the Province.

Conferences were arranged with Mr. A. L. Killaly, Superintending Engineer of the Trent Canal, and Mr. A. T. Phillips, Superintending Engineer of the Rideau Canal, concerning the relation of water levels in these canal systems to game-fish conservation.

The Committee also visited many of the public and private fish cultural establishments in the United States, for the most part in the tier of states bordering upon the Great Lakes and having in many ways conditions analogous to those in Ontario. These establishments included the State Hatchery at Caledonia, N.Y., the privately owned hatchery of James Annin and Sons, Caledonia, N.Y., the State Hatchery at Pleasant Mount, Pennsylvania, the privately owned hatchery of the Paradise Brook Trout Company, Cresco, Pennsylvania, the State Hatchery at Hackettstown, New Jersey; the Aquarium, New York City; the Federal Hatchery of the United States Bureau of Fisheries at Holden, Vermont; the State Hatchery at Paris, Michigan; the State Hatchery at Comstock Park, Michigan; the State Hatchery at Hastings, Michigan; the State Hatchery at Three Lakes, Indiana; the State Hatchery at Defiance, Ohio; the State Hatchery at Akron, Ohio; Riley's Fish Farm at Barberton, Ohio; the State Hatchery at Corry, Pennsylvania; and the State Hatchery at Chataqua, New York.

Apart from enquiries made of the officers of these establishments, conferences were arranged during the visits with several persons, including Dr. E. Moore, Director of Biological Survey, Investigator in Fish Culture, Conservation Department, New York; Mr. John W. Titcomb, Superintendent, State Board of Fisheries and Game, Connecticut; Dr. William C. Kendall, Ichthyologist, Bureau of Fisheries, Washington, D.C.; Mr. Fred A. Westerman, Director of Fish Division, Department of Conservation, Michigan; Dr. C. L. Hubbs, Curator of Fishes, State Museum of Zoology, Michigan; Mr. T. H. Langlois, State Fish Pathologist, Michigan; Messrs. James and H. K. Annin, Consulting Fish Culturists, Caledonia, New York.

The Committee is under obligation to Mr. Garnet Bell, Toronto, who rendered assistance in many ways during the progress of the investigation.

Much assistance and a great fund of information was obtained through correspondence with Mr. Henry O'Malley, Commissioner of Fisheries, Washington, D.C.; Mr. N. R. Buller, Commissioner of Fisheries, Pennsylvania; Mr. Alexander Macdonald, Commissioner, Conservation Department, New York State; Mr. Thaddeus Surber, Superintendent of Fish Propagation, Minnesota; Mr. H. S. Davis, Pathologist in Charge of Investigations in Fish Culture, Bureau of Fisheries, Washington, D.C.; Mr. W. H. Fell, Secretary, Board of Fish and Game Commissioners, New Jersey; Mr. D. A. Thompson, Chief, Division of Fish and Game, Ohio; Mr. George N. Mannfeld, Superintendent of Fish and Game, Indiana.

The Provincial Departments of Public Works, Lands and Forests, and the Ontario Hydro-Electric Power Commission, as well as the Dominion Department of Railways and Canals, have supplied valuable information.

During the progress of the investigation, circular letters were sent to various individuals and organizations throughout Ontario, including sportsmen, sportsmen's associations, hotelkeepers, tourist resort owners, outfitters and others likely to be interested or informed as to the general situation, asking for expressions of opinion.

A public meeting was also held on January 9th, 1929, at the Parliament Buildings, Toronto, at which the combined recommendations of the Ontario Federation of Anglers, representing various local Associations throughout the

Province, were formally presented and at which delegations from various parts of the Province spoke to the recommendations or outlined to the Committee the peculiarities of their respective districts.

Mr. A. L. Killaly, Superintending Engineer of the Trent Canal, and Professor J. P. McMurrich, Chairman of the Biological Board of Canada, attended this meeting by invitation and contributed materially to the information available to the Committee.

A special meeting was held on January 30th, at which the Honourable Wallace Nesbitt and Mr. M. H. Ludwig discussed with the Committee the game-fish situation in Georgian Bay.

Finally, the Committee had at its disposal a large amount of published material, including the reports of the Ontario Government Commissions of 1890-1892 and 1910-1911, the reports of the Dominion Fisheries Commissions of 1893-1894 and 1908, the annual reports of the Provincial Department of Game and Fisheries and of the Dominion Department of Marine and Fisheries, the reports of various State Commissioners, of the United States Bureau of Fisheries, the American Fisheries Society, and many other documents bearing upon fishery problems in general.

The Committee is under great obligation to various individuals and Associations both for information readily supplied and for local arrangements which have facilitated the work. Special mention should be made of the contribution of the Ontario press in giving public advertisement to the work of the Committee, and to the questions upon which information was desired.

It is a pleasure also to acknowledge the willing co-operation and uniform courtesy experienced in the course of enquiries prosecuted at various points in the United States. To all the Committee extends its cordial thanks.

REPRESENTATIONS:

During the course of this enquiry, as previously stated, the Committee has sought information along several specific lines and has had presented to it from many sources a large number of suggestions, requests for further investigation and other types of representation. Among these first place is to be given to a communication from the Ontario Federation of Anglers, a body made up of some twenty-five Associations of game-fish, game, forest or allied interest throughout the Province and contributing directly to the communication, and perhaps as many more local bodies associated closely or otherwise with the Federation.

The Committee acknowledges gratefully the helpfulness of these representations to its various lines of enquiry, pointing out also that it has been a matter of very great difficulty to place upon many of them what might be generally accepted as a proper interpretation. Some of the matters treated were, for example, based upon points of internal organization which could appropriately be considered only by the Provincial authorities directly. Further, some of them, both of this class and of reference also to matters which in their external or public relation might have been properly considered by the Committee were of the nature of impressions which within ordinary means of treatment could not easily be substantiated. If we add to this the fact that in any enquiry of this kind it is necessary to depend upon lay information for observations which ought to be available in technical form, and the circumstance, well-known to conservationists, that individuals often develop enthusiasm for particular causes when their private interests, as opposed to the public interests, have

been or are going to be affected, it will be seen that we have, by and large, a situation out of which constructive suggestion available for purposes of the Committee could only with considerable discrimination be obtained.

While this statement is to be considered purely in the light of such construction as the Committee has placed upon the information received, it is not out of the way to state that the nature of these various representations as well as the composition and local distribution of the Associations, reveals clearly the important fact that the best aims of these Associations are not different from those of the Department of Game and Fisheries, and further that effective co-operation must depend upon the ability of these Associations to present clear-cut suggestions of public policy rather than of private interest, for the most part, but by no means necessarily, of general rather than local application, and without the expectancy of detailed or advanced information beyond ordinary observation or in general an intelligent lay point of view. The Department then should on its part not only welcome such co-operation but also have at hand the necessary technical experience and facilities to give force and substance to it.

SOCIETIES OF CONSERVATIONAL OUTLOOK:

While this report is concerned with game-fish matters alone, it is generally recognized that various game, game-fish, protective, natural history and conservational interests are not only closely allied but are commonly represented by the same individuals and Associations. The Province is now in the position or stage of development in which it can be plainly perceived that the growth of these Associations along properly directed lines is likely to prove one of the strongest influences which will in the near future be brought to bear upon the conservational situation and will provide the countercheck for all types of destructiveness and wastage which would otherwise obtain. For this reason, the Committee has been at some pains to obtain as complete a statement as possible of Provincial Societies representing the various interests named, with more especial reference to those representing the game-fishes. The list is as follows:

Athens.....	Charleston Lake Association.
*Bobcaygeon.....	Bobcaygeon Game and Fish Protective Association.
Brockville.....	Brockville Game and Fish Protective Association.
Campbellford.....	Game and Fisheries Association.
*Chaffey's Locks.....	Chaffey's Locks Fish and Game Protective Association.
*Fenelon Falls.....	Fenelon Falls Anglers' Association.
*Fort William.....	Fort William Fish and Game Protective Association.
*Georgian Bay.....	Georgian Bay Cottagers' Association.
Grey County (Thornbury).....	Grey County Fish and Game Protective Association.
*Honey Harbor.....	Honey Harbor Cottagers' Association.
*Hamilton.....	Hamilton and District Angling and Casting Association.
Havelock.....	Game and Fisheries Association.
*Hespeler.....	Hespeler Gun Club and Game Protective Association.
Hanover.....	
*Huntsville.....	Huntsville District Game and Fish Protective Association.
Huron County (Exeter, Ont.).....	Huron Game and Bird Protective Association.
Kenora.....	Kenora Fish and Game Committee of Board of Trade.
*Kingston.....	County of Frontenac Fish and Game Protective Association.
*Lindsay.....	Victoria-Haliburton Game and Fish Protective Association.
London.....	London Angling Club.
London.....	Western Ontario Fish and Game Protective Association.
Marmora.....	Marmora Booster Club.
Midland.....	The Georgian Bay Anglers' Association.
Magnetawan.....	Magnetawan Pioneer Association.

Malachi.....	Malachi Campers' Association.
*North Bay.....	Nipissing Fish and Game Protective Association.
*Niagara Falls.....	Niagara Falls Hunters' Game and Fish Protective Association.
Orillia.....	Orillia Anglers' Association.
*Oshawa.....	Oshawa Anglers' Association.
Ottawa.....	Ottawa Game and Fish Protective Association.
Parkhill.....	Game Protective Association.
*Peterboro.....	The Peterboro Fish and Game Protective Association.
Peterboro.....	Peterboro Chamber of Commerce.
Port Hope.....	Port Hope Fish and Game Protective Association.
*Port Arthur.....	Port Arthur Game and Fish Protective Association.
*Port Elgin.....	Tamarac Fishing Club.
St. Thomas.....	Southern Counties Game Protective Association.
*Sault Ste. Marie.....	Algoma Game, Fish and Forest Association.
Sharbot Lake.....	Frontenac Game and Fish Protective Association.
Smith's Falls.....	Smith's Falls Anglers' Association.
*Stratford.....	The Stratford Anglers' Association.
*Sudbury.....	Sudbury District Game and Fish Protective Association.
*Sudbury.....	Sudbury Trout Club.
*Timmins.....	Porcupine Rod and Gun Club.
*Toronto.....	Ontario Hunters' Game and Fish Protective Association.
*Toronto.....	Toronto Anglers' Association.
*Trent River.....	Game and Fisheries Association.
*Ontario Federation of Anglers.	

Except, perhaps, for the game-fish interests this list is doubtless very incomplete. If all the societies interested in various phases of the natural resources were to be ascertained and listed it would doubtless be found that we have in Ontario not only a very large number of individuals and of societies capable of being federated or organized on the basis of a general protective policy, but also that we would have in this type of organization a means of public education, the need of which has recently and in the past been stressed by foresighted citizens of practically all sections of the Province and all walks of life.

COMMENTS ON THE GENERAL SITUATION:

During the course of this investigation, it has been repeatedly brought home to the Committee that while fishery regulation is an immediate practical necessity however founded, the evidence upon which intelligent action might or should be based is often far from satisfactory. Game-fish control, including therein provision for reasonable use and enjoyment, avoidance of misuse, and arrangements for natural or artificial replenishment, is at best a problem beset with difficulties.

It is perhaps inevitable that a matter so intricate as the growth, reproduction and relative abundance of animals living in a state of nature, more especially of fishes, which live in a medium removed from direct observation, should give rise to much uncertainty, both from the lack of precise information concerning the animals themselves and from the lack of public understanding of the situation. It is unfortunate that practical fishery work has not, in general, advanced to the technical stage characteristic of other fields in which a solid basis of objective information is conceded to be necessary and has been gradually built up for control purposes. The result is that both on the part of officials and on the side of the public there is a far too common tendency to look upon game-fish management, as a matter of personal judgment or even of local convenience, to consider fishery regulation without regard to the basic rules and regulations specified by nature herself, or again to take a short view of the situation by failing to consider trends and tendencies in proper develop-

mental perspective as opposed to conditions immediately presented. This is especially true in respect of current opinion as to the causes of fish depletion.

It is scarcely necessary to point out that if we had at our disposal all the basic information necessary for control purposes there would still be plenty of room for discussion and for divergence of opinion as to what line of operation would be best to follow. Practical expediency and technical information are quite different phases of the matter. This statement applies with particular force to Ontario to-day because of the enormous area to be administered, the difficulties of its physical nature, as well as the transitional condition that our Province is now in as regards the expected sources of revenue and reasonable expenditure in relation to the natural resources in general.

Taking conditions as they are, and realizing that in relation to a great mass of representations and of personal observations, to a greater or less extent germane to the subject, there ought to be some practical basis of discussion, it has appeared to the Committee that certain matters of the general outlook which are commonly discussed and to a certain extent misinterpreted should first of all be reviewed. These matters refer to (1) the practical value to be expected from the fact of natural increase or excess productivity of fishes, (2) the influences leading to depletion, (3) the application of limiting legislation, and (4) the effectiveness of propagatory and re-stocking processes and the hatchery situation in general.

(1).—NATURAL INCREASE

Regarding the natural increase or excess productivity of fishes, it is an established fact that animals living in a state of nature produce far more young than are necessary to maintain the species even in abundance. Of this principle the game-fishes are shining examples. Both in the case of fishes and in that of land animals, especially the domesticated animals, the occurrence of excess productivity has been used to good advantage in various ways. In the case of the fishes it has also been grossly misused, largely, we may presume, because in a water medium results are not so easily seen.

A body of water containing, let us say, the remnants of a species formerly abundant should, on the basis of opinions popularly held, and under conditions of adequate protection, show a return to something like the original plenitude of the species concerned. But there are comparatively few instances in which such protection has been provided, and there are comparatively few instances in which a return to what may be called plenitude, whether under protection or not, has actually taken place. It is just as likely, perhaps more likely, that in the meantime the water has become modified, or that a new balance between the various species themselves has been set up by which the depleted species is no longer in the race. This would be especially true of the game-fishes, because notwithstanding their recognized ability to take care of themselves, they are species which have come to be desirable as game-fishes for the reason that nature had already marked them as dominant carnivorous elements in a natural food cycle, and, therefore the removal of many individuals of any one of such species is likely to be of much greater consequence as regards the next species to attain dominance than would be the case of many of the less active competitors in the food cycle.

Generally speaking, until we are able to determine what the local conditions actually are, so that we can forecast with some accuracy the probabilities of success, the only proof that natural productivity will bring back a species to a state of plenitude, will be furnished by direct observation of what is shown

in bodies of water that have been kept under conditions of perfect closure for several years. The assumption that a return to conditions of plenitude must of necessity take place is without adequate foundation.

Furthermore, it has been commonly assumed that if species are introduced into new waters in which they successfully mature, they will also reproduce and multiply there, so that by a process of natural increase abundance will be established. Probably, if statistical data were available, it would be found that the transfer of adult bass in Ontario or elsewhere has been more often successful than trials with other game species. Numerous instances have, however, come to light in which such has not been the case. When, some years after a planting has taken place, sizable adults are found but no young, the usual explanation is that the young are being consumed by trash or enemy fish. It is more likely to be the case that the individuals of the species concerned, while they were able to grow up, did not find conditions suitable for propagation or for growth of the young, whether from lack of physical conditions suitable for spawning or lack of provision of suitable food for the fry. And it is possible also that severe competition is going on between individuals of the species, old and young, because of a general but not fatal deficiency of food materials.

Again, as noted elsewhere in the discussion of hatchery practice, it appears fairly plain that the circumstance of excess productivity of fishes has brought about a sort of easy optimism among fish culturists as regards the hatching of eggs in large numbers and liberal distribution of the fry. The real question at issue is not whether eggs can be obtained and hatched in large numbers, but whether fish can be grown to such a size that it is profitable, either for sport or income, to rear them, and what the chances of survival are when transferred at any stage to natural waters.

No farmer or poultryman would think of hatching large numbers of fowl and after turning them loose without food or protection from their natural enemies, expect to find them in abundance. Yet this is largely what has taken place in fish culture. Even assuming all the possible success that may be expected of direct supervision of the eggs in hatching we still have the following elements of uncertainty: (a) that under absolutely natural conditions comparatively few eggs ever have a chance of going through to mature fish, (b) artificially reared fish will not be so alert in protecting themselves as naturally produced fish, (c) chance planting will most likely result in conditions unsuitable for the young and perhaps adults to live.

This uncertainty should be a warning against accepting too readily the notion that artificial handling improves on nature. A very good case can be made for artificial handling as applied to domesticated animals, and even as applied to some game animals turned loose in nature, but in the present state of knowledge as applied to fishes it would be the better part of wisdom to protect natural propagation so far as is possible and to concede to nature the advantage of experience as to how the work is successfully accomplished.

In a word, although the excess productivity of game-fishes is one of the great bounties of nature, it is likely to be of no practical consequence, except as a matter of mere chance, unless conditions in the water are favourable, and under artificial handling the factors favouring or impeding the growth and reproduction of these fishes must have been accurately determined.

(2).—DEPLETION

Depletion is a matter concerning which there appears to be a great deal of obscurity and considerable divergence of opinion. This condition arises no doubt from the fact that some view the situation as a local or temporary one, while others have a long range perspective of the tendencies at work making for game-fish scarcity. To the average sportsman perhaps, a state of depletion exists when the fishing is so poor as to be no longer worth while to him. To the tourist trade interest the question is whether or not the fishing is good enough to prove the deciding element in favor of a given locality, and for the same reason public admission of a state of depletion is not likely to be made until after it has reached a very advanced stage.

Leaving aside for the present the fact that preventing or overcoming depletion is the final issue, there appear to be two aspects of the matter which are significant in a more fundamental way. The first is the manner in which depletion is actually brought about, and the second has to do with the local situation.

Depletion is not, as frequently understood, a condition either of recent origin or of temporary nature. Many of the simpler suggestions as to how depletion can be remedied fall considerably short of the mark, though these suggestions do no harm, except that they tend to put too easy an interpretation upon a matter which is actually difficult, namely, how to bring depleted waters back to a state of plenitude. It would be better to consider depletion as a process and to understand how reduction of native stocks begins in the first place in order to appreciate the nature of the final stage to which the term depletion is usually applied.

The fact made clear by early observers, that originally the waters of our lakes and streams abounded in game-fish is well known to every one. To enquire why those waters should have been full of fish is perhaps irrelevant, but it brings forcibly to mind the fact that the abundance of species desirable from a human standpoint was arrived at by nature long before the human element appeared upon the scene, and before human interference began to modify natural conditions. In the light of present knowledge, it appears that after a developmental period of perhaps thousands of years, during which time all the inhabitants of the water, both fishes and food organisms, were fighting for their individual existences, a state of balance had finally been arrived at in which every factor making for increase or limitation of numbers was exactly covered.

Early travellers and pioneer settlers made use of those fish as the Indians had done before them. Being denied the freedom of profligacy in other respects, they probably enjoyed the privilege of letting much of what they took go to waste. They did not produce depletion as we know it now, but they undoubtedly struck the first blow at species already fighting for their existence, and in so doing began to throw the balance to the wrong side.

This process has been going on ever since. It has been assisted by almost every influence that has come about in the course of social and industrial progress. We have only to run through the list—deforestation, navigation facilities, water supply, pollution, power development, tourist trade, and what not—to see how the process of fish extermination works. When we observe the productivity of certain waters, it appears to be little short of marvellous that the fishing has held up at all. On the other hand, there is scarcely a body of water in Ontario that does not reflect in its game-fishing its industrial and tourist history. In

the case of waters which ten years ago had game-fishing brisk enough to inspire enthusiasm and since then rapidly falling off, the explanation is fairly simple, namely, that the fish are not now and never have been capable of sustaining good fishing even for small numbers of sportsmen or for any great length of time. What is happening now is that fishing by increased numbers of sportsmen and others is breaking the last defence so far as the ability is concerned of particular species to maintain propagation and growth against conditions of unnatural balance.

In the second place, we have in Ontario the widest possible range of incidence as regards the influences above described or the stage of depletion as it exists. The fact that the Province has a reputation for good game-fishing can be shown to depend upon peculiarities of this incidence. Our security herein rests upon the possession of a relatively large wild area not yet greatly occupied.

For purposes of comparison a line roughly following the Trent Canal, or more accurately following the line of Pre-Cambrian contact from Georgian Bay to the St. Lawrence River, divides the Province into two parts of very different character and development. Viewing the matter historically and considering the southern and for the most part southwestern portion, we have a relatively small area which, from the possession of continuous water routes, climate and agricultural potentialities, sustained, from the game-fish standpoint, the first shock of industrial development and of depletion. Early records show that both lake and stream waters contained game-fish in abundance. They show that game-fishing with some exceptions went down rather gradually but progressively. They show also that while there were then, as there are to-day, protests and warnings from sportsmen, the process went on without attracting much attention, probably because no tourist trade element ever came into the situation.

While this development was going on, and during its advanced stages in the last century, the waters immediately along and to the northward of the Pre-Cambrian line began to be accessible and also desirable from the summer visitor's point of view.

The waters involved were the Muskoka Lakes, to some extent the Georgian Bay and the magnificent lakes and streams of the Trent and Rideau systems, both in their original and modified conditions, together with the upper reaches of the St. Lawrence River. It was on the basis of the plenitude of fishes in these waters, of the scenic attractiveness of the country and the fact that the tourist movement was more or less isolated and very moderate, that the reputation of the Province for game-fishing was solidly established. It is the same waters, generally speaking, that are now in a critical condition.

Within comparatively few years attention has become focused northward. In the general movement of tourist traffic we have always been able heretofore to keep a little ahead of requirements. The question now is whether we can continue to do so. For example, industrial enterprise, based on pulp and paper, on mining, and on northern agricultural development, assisted by railroad, motor road and even aerial facilities is already putting game-fish traffic forward on the last lap of the journey to Hudson Bay. Navigation facilities on the Great Lakes and canals are making the entire shore line, especially of the upper lakes, available to cruiser traffic. In the northwest portion of the Province—Rainy River, Kenora, Thunder Bay and Algoma districts, for a long time well known to a select number of tourists to whom it was accessible as of outstanding game-fish possibilities—improved means of railroad and motor

transportation, both from the United States and from the sister Province of Manitoba, now promises a large and increasing tourist invasion into the hitherto less accessible places. All these tendencies indicate that the rate of depletion will be greatly accelerated and also that further shifting of game-fish possibilities northward is out of the question.

Depletion is a process of long duration which can and in all Ontario situations is likely to be greatly accelerated. It has been kept going by sport-fishing requirements and by the food requirements of settlers and many other incidental influences. It has been hastened in recent years by increased fishing on the part of greater numbers of tourists who have found the more outlying parts of the Province becoming more easily accessible both as regards transportation and living comfort. It makes very little difference whether in a given situation depletion is claimed or admitted. Game-fishing in every body of water in the Province which is accessible is headed in that direction. Consequently every influence that can be brought to bear in any local situation to counter-balance or remove common but unnecessary causes of depletion should in the general interest be applied.

(3).—THE APPLICATION OF LIMITING LEGISLATION

As regards legislation of a limiting nature, there appear to be at least three phases of the matter which are of particular significance in Ontario. These are, first, the extent to which the limitation fits the natural requirement of game-fishes in respect of growth and reproduction; second, the basic soundness of uniform legislation for all parts of the Province; and, third, the practical effectiveness of the supervising or policing system. To these might be added a fourth, namely, the nature and effect of dual control as between Provincial and Dominion services.

It may be observed that any system which restricts capture, (whether as regards size, quantity, times of taking), or purchase and sale, must result in conservation of the supply. The fact that in Ontario all these elements combined enter into the regulations indicates that except for minor improvements, as suggested elsewhere in this report, the plan or policy in force leaves little to be desired.

It is unfortunate perhaps that most of the changes which have been made are in accordance with the idea of "greater depletion, therefore more limitation". Little opportunity has been available of easier conditions based either upon re-stocking or natural increase. But it is to be borne in mind that fishes are in a different position from land animals in that the latter have times of greatly increased abundance so that opening and closing of hunting privileges may be more readily and also more reasonably made. Furthermore the game-fishes have always been more or less counted upon to fill the breach in the summer vacationist's programme, and have therefore been more open to continuous drainage of supply because of the absence or prohibition of other forms of sport in the wild areas at this time of the year. These disadvantages will not be counterbalanced until there are more closures and sanctuaries provided for game-fishes.

As regards the question of the fitness of the regulations to conditions represented by the natural requirements of the fishes themselves, there are two chief considerations, namely, the duration of close season and the minimum size. On these points there is general agreement, first, that no matter what

of Ontario, since each was in a position to explain its requirements and views. A certain amount of sacrifice is required on the part of all the fishermen involved, if the fishing industry is to be maintained, and the majority, it is believed, recognize this fact.

Long Point Bay, Lake Erie:

In addition to the activities of the Branch in connection with the Lake Erie Fisheries' Survey this year, a temporary fisheries' research laboratory was established at Port Dover, a port of considerable importance from the standpoint of commercial fishing. The field laboratory was established primarily for the purpose of making an intensive study of the limnobiology of Long Point Bay. These studies resulted in the capture and identification of fifty different species of fish inhabiting the bay, their abundance, age, sex, measurements, food, and the general limnology of their habitat. Knowing certain conditions at least, the Department is in a better position to regulate both game and commercial fishing carried on there.

Biological Survey of Trent River Watershed:

One of the field parties spent an entire summer making a biological survey of the chain of lakes included in that part of the Trent Canal System from Lake Simcoe to Lake Ontario as follows: Balsam Lake, Cameron Lake, Sturgeon Lake, Pigeon Lake, Buckhorn Lake, Deer Bay, Upper and Lower Stony Lake, Clear Lake, Trent River, Crow Bay, and Percy Reach.

From two to five days were spent on each body of water in the chain and during three weeks in September a more intensive study of Stony Lake was made, especially the upper part.

The general plan of study was similar to that used in limnobiological studies described in the report for 1928.

Grand River Watershed:

A very general survey of the Grand River System was made, as a point of departure for more intensive biological studies next year.

Fishways:

This year a systematic examination of obstructions along many of our water courses was made, in order to determine whether the present fishways are suitable or desirable and what steps should be taken to correct existing conditions injuriously affecting fish life. Before erecting a fishway, the height of the dam or obstruction must be considered, and also the possibility of a suitable location for the same. The standard fishway used by the Department appears, from the observations of our field men to be suitable. The feasibility of a fishway depends not only on the height of the obstruction, whether natural or artificial, but also on the importance and value of the migratory species in the stream. The available spawning and feeding grounds for migratory species, both above and below an obstruction, must be considered also, in determining the desirability of introducing a fishway.

Streams containing rainbow trout should not be obstructed, since they have a tendency to migrate downstream from smaller streams to the deeper

net portions of rivers, and into larger lakes while immature, but they return to the smaller streams to spawn, hence the necessity of keeping such streams free from obstructions.

On the other hand, providing the upper reaches of a system are well supplied with speckled trout and are separated by an obstruction, natural or otherwise, from the lower warmer reaches containing only coarse fish, it is not feasible to run the risk of infesting the trout waters with the coarser varieties of fish by opening up a fishway through the obstruction.

Fish Measurements:

Considerable work is being done in connection with measurements of fish, particularly commercial varieties, in order to convert "legal weight" into terms of "legal length." It is necessary to take thousands of measurements for each species at different periods of the year, their age, sex, sexual maturity, etc., in order to arrive at a fair and undisputed standard. In this connection, it has been found that a standard length used for a species in one of the Great Lakes, or, in one inland lake where commercial fishing is carried on, is not true for the same species of the same age in a different lake. In other words, the rates of growth of the same species differ in different lakes.

Fish Tagging:

Six hundred and thirty-five Lake Erie fish have been tagged including steelhead trout, whiefish, herring, white bass, yellow pickerel, blue pickerel, and small-mouthed black bass, in order to study their movements, distribution and rates of growth.

The tag, which is non-corrosive metal No. 3, is stamped on one side with the letters O.D.G.F. "Ontario Department (of) Game (and) Fisheries" and on the other with a serial number.

During the tagging process, the fish, which is preferably of illegal size, is retained in fresh water in a tank of convenient size in which to work on board boat. The tank has the bottom or sides, or both, marked off in inches and fractions thereof in order that the length of the fish tagged may be easily obtained and also its depth in inches. In order to determine the age of the fish tagged, two or three scales are removed from that portion of the body ventral to the dorsal fin, and the area from which the scales are removed is bathed with a solution of potassium permanganate. The weight of the fish is determined and it is then released.

By means of a circular letter the Canadian fishermen on Lake Erie have been informed regarding the methods to be adopted in making returns to the Department. A few returns have been made, but it is too premature to make a pronouncement regarding the results of these experiments.

Pollution:

Studies in connection with pollution require more specialized and intensive work. During the past year very little was done in this direction excepting investigations of local disturbances at Lindsay, Bridgeport, Owen Sound, and general observations made in the Spanish, Mattagami and Wabigoon rivers, during biological surveys. However, preliminary surveys help appreciably in

has been developed within the Department of Biology of the University of Toronto the Ontario Fisheries Research Laboratory which has already conducted a number of survey investigations, and the operation of which has recently been placed on a proper financial footing through co-operation of the Provincial Government. These and other agencies will be discussed later in connection with the general question as to how the various elements available for scientific fisheries investigation may best be brought into mutually helpful relation.

As hinted above, the question as to the method of operation of the fish cultural service and of such technical control or investigation as can be brought into relation with it is only a part of the general question as to how hatchery practice and allied operations can be improved along game-fish lines. It should be remembered in the first place that the Provincial hatchery system consists of a rather complex and elaborate plant, the physical condition and capacities of which depend for the most part upon the nature of its historical development at first under Dominion and later under Provincial auspices. The system has the normal obligation not only of game-fish production but also of all commercial fish production carried on in or for the Province. An important point to consider more especially from the point of view of present and projected expense, is that as late as 1926, the Dominion Government definitely abandoned fish cultural operations in Ontario, and thus left to the Province a suddenly increased obligation in the matter of hatchery operation. Increased game-fish production is again a newer issue in the sense that although game-fish work has been not only continuously a component of hatchery operation but also the original foundation of it, the game-fish interest has lately become a major consideration, and as a result the Province is practically in the position of being urged to assume a further obligation which so far as can be seen will demand considerable new construction as well as new facilities in the way of rearing, retaining or spawning ponds and extensions otherwise of the fish cultural service.

SERVICE ORGANIZATION

There appears to exist, variously throughout the Province, so far as represented to the Committee, some feeling of dissatisfaction concerning game and fisheries in general, both on the score of the public relations of the Department and on the basis of its working arrangements. There is on the other hand a great deal of acknowledgment of the difficulties of the situation and of the efforts of the Department to meet them.

While as previously mentioned many phases of this situation are such as belong properly to the administrative authority, and do not concern the work of the Committee, except in so far as they reflect a more general public view of influences affecting game-fishes and game-fishing, the Committee believes that there are several points upon which helpful suggestions may be made. On these points the Committee offers no recommendations, calling attention to them simply as matters to which consideration might with advantage be given. They refer in the main to the position of the Department as a branch of the Provincial service, public relations of the Department, and the ubiquitous question of the effect of external influence on service efficiency.

RELATION TO GOVERNMENT ORGANIZATION

From the point of view of effective service organization rather than administration in a general sense the proper alignment of either game-fish management or of game and fisheries management with other branches of the public service has apparently never been a matter of very close agreement. In various parts of the world, game-fish management has been variously associated with fisheries generally, agriculture, forestry or combined services representing conservation, depending apparently in part upon natural alliance and in part upon historical development or local requirement. There is, however, very general recognition of the fact that various natural resources which have to do with plants and animals in a broad way have overlapping interests and therefore should not be administratively handled in water-tight compartments or in an isolated fashion as regards service requirements.

In Ontario the attachment of the Department of Game and Fisheries to the Department of Mines appears to have been founded upon administrative convenience rather than upon natural association, and the question has been freely discussed in public as to whether this association is in any way disadvantageous to the fisheries service. The Committee has been gratified to observe that wherever in the Province adverse comment has been made concerning the combination of Game and Fisheries on the one hand with Mines on the other it has been coupled with the expression of respect and appreciation for the services rendered to fisheries interests by the present Minister. The general impression appears to be that no constructive purpose can be served by the combination of two such divergent services, and that while it might be a wrong inference to conclude that the services suffer in that respect, it is at least a reasonable prospect that game and fisheries service would enjoy more rapid development under separate auspices.

The natural alliance between game-fish interests on the one hand and forestry interests on the other hand has been commonly discussed in this relation. Practically every phase and ramification of the work of the Department of Lands and Forests along the lines of timber, pulpwood, forest reserve, fire protection and reforestation has a distinct bearing upon game and game-fish conservation.

It has been suggested also that Ontario should adopt the plan of natural resource service represented by the various State Conservation Commissions in the United States. Having had at least some opportunity of making enquiries as to the way in which service arrangements work out on that basis, the Committee has been favourably impressed with certain advantages commonly shown, namely, the more direct public co-operation which is possible under a Commission form of management, and further the more co-ordinated control of field officers for forest, game and fisheries protection service. At the same time, it is realized that in Ontario we have a very different situation as regards service requirements, inasmuch as there is a very large area of wild lands to administer, a correspondingly large obligation to meet in the matter of protective service and control of basic industrial development, and therefore greater ramification and independent organization of the various service units.

Under the circumstances now existing and in view of the fact that the two major Departments of Mines and Lands and Forests already have heavy obligations in respect of the public service, which obligation may be expected in future to be substantially increased it would appear to be worthy of consideration that the present Department of Game and Fisheries, the work of

which is also likely to be greatly expanded, should be made a major Department and so placed under the charge of a separate Minister who would be able to give full time to its requirements. In view of the fact that the matter has only a minor relation to the work of the Committee, and the probability that many other factors are involved besides those above-mentioned, it will be sufficient to state that the change here suggested would unquestionably meet with the approval of a large body of sportsmen.

PUBLIC RELATIONS

As regards the external relations of the Department from the point of view of their possible effect upon game-fish conservation, the Committee believes it to be advisable to point out some difficulties of the situation which appear to be unavoidable, but with the object of endeavouring to make clear that in order to have a proper atmosphere helpful alike to the Department and to the public, there must exist some mechanism by which the effects of less fortunate circumstances may be counterbalanced.

For example, a branch of the Government service charged with the onerous and at times perhaps unpleasant task of collecting license fees and royalties, or of maintaining law enforcement with the usual accompaniments of prosecutions, fines and confiscations, will certainly not receive acclaim in all quarters, and will not enjoy any particular sentiment of general support until public fancy, public pride, educated opinion, or appreciation of service rendered results in public acknowledgment. There are of course plenty of individuals who are ready at any time to complain because their private interests have been affected, and there are law-breakers of several categories, some, for example, of whom nothing else may be expected, and others to whom game laws do not represent more than a lightly regarded conviction or responsibility.

The importance of building up public sentiment favourable to any Government service is everywhere admitted, and conversely the lack of such sentiment is usually most evident when service operations are not conspicuously in the public eye. A good illustration of this may be seen in the case of the fish hatcheries. Those who are acquainted with the historical development of these hatcheries in the Province know that they have been built up by progressive stages into a rather comprehensive system. But if we compare hatchery service, keeping in mind the hatchery buildings, locations and the ordinary operations of the fish cultural branch, with other services, it will be seen that they are not in the public eye in any way comparable to such services as highway construction, public works, or public health. There is an enormous difference in attitude between the man who casually hears of fish hatching, is only concerned about a few days perhaps of sport, is not concerned about Government relations to it except as a matter of regulation, and the man, let us say, who with the inconvenience of a license or two and some taxes is able to enjoy fine roads for practically 365 days in the year.

The fact that our hatcheries are not likely to attract public notice has at various times been commented upon, and for this reason the Committee could not fail to observe and to be impressed by the fact that variously in the United States and especially in Pennsylvania this matter has already received a great deal of attention, for the hatcheries are likely to be show places, and in this respect, doubtless with the expenditure of a good deal of money, have been placed in the position where they command public notice and with it public pride and support.

Comments are numerous throughout Ontario, also among residents and non-resident summer tourists, as to the general scarcity of public information concerning game-fish and game-fish regulations. Some years ago, the Department of Lands and Forests inaugurated a system of posting throughout the northern area rather striking notices designed to assist fire prevention. The specific value for their purpose and also the general educational value of these notices has been generally recognized. The fact that the traveller in the wild places comes upon one of these notices every now and then is a striking and convincing reminder—one of the few reminders from the point of view of the non-resident—that we have a public service looking after conservation. The idea is an important one from the point of view of the game-fishes, and one which again the Committee has brought to its attention in the United States. The fact in general is that apart from some formalities in the way of purchasing permits, the tourist is being turned loose in hundreds of square miles of territory in which in most respects there is very little indication of a managing public service.

So far as represented to the Committee, however, there is another phase of the situation which appears to be still more significant. The impression has somehow gained ground that the practical requirements of game-fish protection and re-stocking are suffering because of the lack of desire on the part of the Department to co-operate with external agencies. This is not a matter of complaint, but the expression of a sentiment that a great deal could be accomplished if done in the proper spirit and in the right way.

While a great deal of allowance should be made for the fact that the Department must in the last analysis rely on its own responsibility as regards all its protective and re-stocking arrangements, cannot afford costly errors, and is never quite in a position to accept without question the suggestions made to it, there appears to be no doubt that a great deal could be done to establish friendly working arrangements.

For one thing, more direct contacts could be established. This might readily be accomplished through personal visits of senior officers of the Department to local Associations, local public conferences, preparation and circulation of good literature bearing upon the service operations of the Department, upon natural history of game animals, fish culture, conservation and similar matters, including perhaps tourist trade information, but not the extravagant misrepresentations often characteristic of that class of publication. For more immediate purposes of contact with local bodies and for the better development of conservational sentiment, it would not be out of the way to suggest the appointment of a special publicity officer. In this case it would be important to realize that we do not need publicity in the ordinary sense but organizing of means of public contact, and that the person selected should by education and technical training be able to act as a service representative of the Department.

Mention may also be made of the fact that in any service organization where the men engaged come into frequent and close relation to the people therein, the service comes to be directly and helpfully regarded. Doubtless in course of time the technical organization of the Department will proceed to the extent that there will be a number of local field officers, not of the nature of overseers, and a closer relation of the local protective service to local Associations in which event the common interests and outlook would naturally be recognized and much of the feeling of isolation now apparently existing would disappear.

DESIRABILITY OF INDEPENDENT MANAGEMENT

Representations have been variously made to the Committee to the effect that political influence may or some times does interfere with the effectiveness of protective service to the detriment of game-fish conservation. The information on this point is indefinite and in general unsatisfactory. It must, of course, be borne in mind that suggestions of this kind are commonly made with respect to Government service here and elsewhere, and that such suggestions may be construed in different ways.

Whether or not within its proper functions, if specific cases of presumed political influence had been available to the Committee the latter would have been obligated to bring the matter to the notice of the Honourable the Minister in charge of the Department. In view of the fact, however, that no specific instance has been presented to the Committee, such as could have been treated in this way, or what is more to the point in the present enquiry, could have been looked into as possibly having a bearing on game-fish depletion, the Committee restricts its comment to one or two broader aspects of the situation.

There doubtless exists in the public mind some anxiety lest the effectiveness of the departmental service, especially along protective and law enforcement lines, may suffer from lack of independence as regards partisan representations. This sentiment is associated with a conviction that such interference is critical, in the same way as might be considered by other groups of interests or citizens generally concerning other branches of Government service, notably perhaps education or public health. Whatever form of management could be employed which would protect the Department in the process of carrying out the law or working in the interest of game-fish management, and more especially of removing out of the reach of interested individuals the temptation of trying to make use of personal or party affiliations, would obviously be desirable and advantageous.

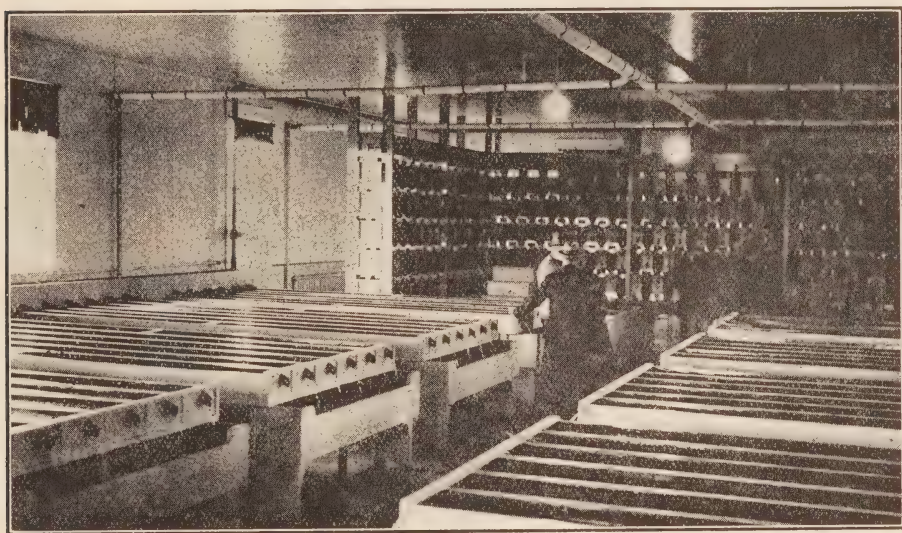
Without, therefore, placing any construction on conditions as they may exist at present, the Committee is in accord with certain broad principles enunciated by the Ontario Federation of Anglers and others, and, it may be added, by the Commission of 1911, as well as various bodies and individuals at different times, to the effect that the entire management of game and fisheries should be so organized as to be outside of the range of political manipulation of any kind, without however withdrawing from the Government the full measure of responsibility. This suggestion, it will be observed, is simply a recognition of an apparently widespread conviction that an independent type of management is in every respect desirable.

ARTIFICIAL PROPAGATION AND RE-STOCKING

Artificial propagation is a well established process. It has been carried on as a public service in Ontario since 1868 when the Dominion Government began the organization of the hatchery system. This system was developed for many years purely under Dominion auspices, but is now entirely under Provincial control. It includes at the present time the bass ponds at Mount Pleasant and some sixteen hatcheries, situated at Mount Pleasant, Glenora, Sault Ste. Marie, Normandale, Normandale Creek, Port Carling, Port Arthur (2), Fort Frances, Collingwood, Wiarton, Kenora, Sarnia, Southampton, Kingsville and Belleville.

In the course of the present investigation the relation of these hatcheries to game-fish conservation has been very generally commented upon. The necessity of producing more game-fish has been clearly demonstrated. The question as to whether the hatcheries are able to accomplish this increase in production has been widely discussed, and there is a great deal of uncertainty as to just how far the Province might reasonably go in the matter.

A study of the hatchery system and fish cultural processes indicates that there are several principal matters that should be considered. They are (1) the origin and present outlook of the hatcheries as regards game fish; (2) the development of rearing ponds; (3) spawning ponds; and (4) retaining ponds as accessories to hatchery buildings; (5) the propagation of native species as opposed to intro-



Interior, Ontario Government Hatchery, Port Arthur, Ont.

duced species; (6) the methods of transfer from the hatcheries to public waters; (7) the problem of successful planting; and (8) the requirements of preliminary scientific survey. In addition to these, there are the closely related matters of (9) the necessity of closure; (10) the utilization and establishment of sanctuaries; (11) the status of aquiculture; and (12) the public aspects of private fish culture.

1.—ORIGIN AND PRESENT OUTLOOK OF THE HATCHERIES

Increased production and distribution of game-fish, if carried out in any very extensive way as a sort of major policy in Ontario, will assuredly call for numerous changes and extensions in relation to the present plant. For this reason, it is important to know the composition of the Provincial hatchery system, to judge its physical condition on the basis of commercial and game-fish production, both of which are current obligations and to ascertain what possibilities and limitations are represented in part by the peculiar development which the system has had as a result of both Dominion and Provincial operation. It is obviously this particular foundation which should be the starting point of any plans for future extensions or changes.

Referring first to the times or dates of establishment of the individual plants and the relation to them of Dominion and Provincial participation we have the following data: (D) signifying Dominion establishment and (O) Provincial establishment or time of taking over:—

D	1868-73	Newcastle (discontinued).
D	1876	Sandwich (discontinued).
D	1890	Ottawa (discontinued).
D	1900	Quinte Bass Ponds (discontinued, 1913).
D	1908	Warton (O. 1926).
D	1908	Sarnia (O. 1926).
O	1911	Mount Pleasant Bass Ponds.
D	1912	Collingwood (O. 1926).
D	1912	Southampton (O. 1926).
D	1912	Port Arthur (O. 1926).
O	1914	Mount Pleasant.
D	1915	Belleville (O. 1926).
D	1915	Kenora (O. 1926).
D	1917	Kingsville (O. 1926).
O	1917	Normandale.
O	1918	Port Carling.
O	1918	Port Arthur.
O	1920	Fort Frances.
O	1921	Sault Ste. Marie.
O	1923	Glenora.

The data above-mentioned indicate clearly the original control of hatchery practice by the Dominion Government, the gradual participation of the Province, and the final withdrawal of the Dominion Government (1926) from hatchery operations in Ontario.

The respective development of game-fish and commercial fish work on the part of Federal and Provincial authorities may next be summarized as follows:—

1868-73	The Dominion Government initiated hatchery practice beginning with salmonoid fishes (including lake and speckled trout).
1898	Privy Council reference gave Ontario administrative control of licensing and revenue.
1900	The Dominion Government acquired the Quinte bass ponds for bass distribution.
1901	Province began distribution of bass.
1908	Province began to raise fingerling bass.
1911	Province completed first bass ponds at Mount Pleasant.
1913	Dominion Government abandoned game-fish distribution in Ontario, including Quinte bass ponds.
1914	Province built Mount Pleasant hatchery for "trout."
1915	Province distributed, in addition to bass fingerlings, speckled trout fry and lake trout fry to game-fish waters.
1917	Province built Normandale hatchery for whitefish and herring, thus beginning work on purely commercial fishes.
1918	Province built Port Arthur hatchery mainly for commercial fish.
1926	Dominion Government withdrew from commercial fish culture in Ontario.

This summary taken in conjunction with data given in the preceding table shows:—

(1) The Dominion Government initiated hatchery practice, expanding gradually in commercial fish work with moderate attention to game-fishes.

(2) From about 1900, the Province developed its game-fish distribution proceeding a step at a time from adult to fingerling bass, to speckled trout, to lake trout in game-fish waters, and finally extended operations to include all commercial fish.

(3) The Dominion Government withdrew first from the game-fish work and finally from the commercial fish work.

The final result of this whole development may be judged from an analysis of the production figures of the report of 1927.

These figures indicate total distribution as follows:-

Maskinonge fry and fingerlings	68,000
Whitefish fry.....	448,789,750
Pickrel fry.....	223,945,000
Salmon trout fry and fingerlings.....	21,465,375
Herring fry.....	18,410,000
Speckled trout fry and fingerlings.....	1,444,050
Black bass fingerlings.....	5,425
Parent speckled trout.....	606
	<hr/>
	714,128,206



Spawntaking at Normandale, Ont. Speckled trout.

It will be borne in mind that the significance of these figures on the game-fish side depends upon the waters to which distributed whether restricted to game-fishing or not, and the fact that otherwise commercial fish (lake trout, pickerel), become game-fish when distributed to waters in which commercial fishing is not permitted.

The following approximate computation is made on the basis of the following categories:-

(1) respective numbers of individual game species, speckled trout, bass, maskinonge; (2) total game-fish, speckled trout, bass, maskinonge; (3) total game and semi-game fishes (lake trout, pickerel) distributed to game-fish waters (no commercial fishing in these waters); (4) commercial fish (including lake trout, pickerel) distributed to commercial waters, and (5) total young of game and commercial fish as distributed.

The comparative figures expressed as percentages are as follows:

CASE 1:

Individual game species:

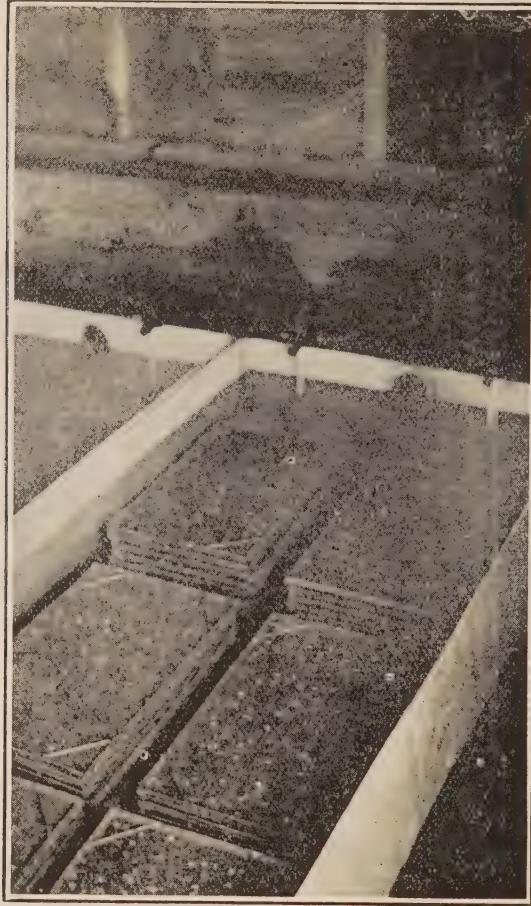
Bass.....	0.36
Speckled trout.....	95.16
Maskinonge.....	4.48
Total game species.....	<hr/> 100.00%

CASE 2:

Purely game-fish.....	0.21%
Other fish.....	99.79%
Total all fish.....	100.00%

CASE 3:

Game and semi-game-fish to game-fish waters.....	4	%
Commercial fish to commercial waters.....	96	%
Total all fish.....	100	%



A few million speckled trout eggs immediately after
artificial fertilization at Normandale
Hatchery, Ontario

In considering these figures a very great allowance must be made for the fact that the eggs of commercial species can be obtained and hatched in very large numbers, and further that the process of planting, at any rate, as practised, is relatively direct. The difficulties attending the handling of game-fish should be appreciated in any comparison which is made. Nevertheless the analysis shows that game-fish production has not been of major importance in Ontario, and that the development has been rather consistently in the direction of commercial fish production.

In view of the gradual and in all probability natural and necessary transfer of fish cultural practice from the Dominion to the Province, it is perhaps useless to discuss what the trend of conditions might have been otherwise. Had the Province continued the game-fish work which in some ways it originated, and had the Dominion continued commercial hatchery operation, it is likely that great progress would have been made along game-fish lines, and the present impasse which has developed as a result of the sudden predominance of game-fish and tourist revenue interest would have been avoided.

As regards the extent of game-fish propagation in Ontario, comparisons have been made with the neighbouring United States. The following tabular statement places side by side the respective output of Ontario as compared with Pennsylvania, New York and Michigan:-

DISTRIBUTION OF FISH FOR PLANTING AND RE-STOCKING, 1927

	Ontario	Pennsylvania	New York	Michigan
Speckled trout.....	1,440,050 606 adults	S 1,275,385 (4''-12'') F 791,617	S 6,776,525 F 1,414,490	S 22,071,333 F 658,550
Brown trout.....	0	S 43,060 (4''-12'') F 188,998	S 1,781,922 F 3,250	S 5,910,359 F 10,500
Rainbow trout.....	0	S 0 F 305,300	S 565,094 F 151,600	S 4,326,991 F 187,950
Small-mouthed black bass..	5,425	S 532,900 (2''-6'') F 0	S 657,700 F 6,450	S 379,305 F 119,803
Large-mouth black bass....	0	S 0 F 8,330	S 0 F 880	S 721,188 F 6,000
Maskinonge.....	68,000	S 0 F 0	S 6,200,000 F 0	S 0 F 0
Pickrel (pike perch).....	G 27,145,000 C 196,800,000	S 51,873,400 F 0	S 107,721,000 F 0	S 58,625,000 F 25,800,000
Lake trout.....	G 2,000,000 C 19,465,375	S 0 F 50,000	S 325,050 F 1,675,450	S 3,414,690 F 23,090,500
Whitefish.....	448,789,750	S 1,500,000 F 3,000,000	S 19,498,000 F 37,800,000	S 20,395,000 F 31,400,000
Cisco.....	18,410,000	S 20,660,000 F 6,080,000	S 37,396,000 F 106,960,000	S 7,000,000 F 7,000,000

In the above table: S=State distribution; F=Federal distribution. In Ontario: G=distribution to game-fish waters; C=distribution to commercial fish waters.

This computation does not set forth the very important difference as regards planting relative large numbers of fry as opposed to smaller numbers of fingerlings, yearling or adult fish. In planting trout, for example, Pennsylvania concentrates upon the distribution of 4''-12'' fish.

These figures are illuminating, but in making comparisons as between Ontario and these States, allowance should be made for the fact that Ontario

has the sole responsibility for both commercial and game-fish propagation, while in these States the work is divided between State and Federal authorities. Furthermore, Ontario is accountable for service covering the whole of the international boundary water of the Great Lakes on the Canadian side, which service is divided south of the boundary among several States.

The striking fact is, however, that in a group of States long since exploited from the standpoint of game-fish possibilities, and now largely in the reconstructive phase, game-fish propagation is being systematically and intensively prosecuted. There is not only a thorough appreciation of the value of the work but also various technical accessories and refinements have been introduced to make it more successful. Since Ontario is likely to go through similar phases, however modified by newer conditions of game-fish or tourist demand, active development of game-fish propagation does not seem to be open to question.

In reviewing the present situation as regards the Provincial hatcheries, the Committee came to the conclusion that while a good deal of game-fish handling can be done in the existing plant, development has taken place so definitely towards the commercial side, as shown both by production figures and also by examination of the buildings and sites, that it would be better to consider the game-fish work for the most part as a new development. The principal facilities available now refer in the main to the Mount Pleasant Ponds, Normandale Creek, Port Carling Hatchery for pickerel and various interchangeable accommodation for lake and speckled trout.

If much progress is to be expected along game-fish lines in the next few years, it will be necessary to make a rather thorough re-survey of the Province from the point of view of new sites, where provision can be made for external construction, equipment and accessories appropriate to game-fish work.

In recommending the adoption of a policy of rapid expansion of game-fish propagation, the Committee would append the reservations suggested in the introductory section, namely, that extension of the hatchery system should be accompanied by thorough examination of the natural waters of the Province and attention to the provision of rearing ponds and other accessories now recognized in practice, so that the product of the hatcheries may be distributed and planted with reasonable hope of success.

In connection with the matter of new hatchery service and sites, the Committee has received a number of recommendations and requests. Since the publication of a list of these suggestions would for obvious reasons not be in the general interest, it may be observed, partly by way of acknowledgment, that such information as has been received will be placed in the hands of the Provincial authorities.

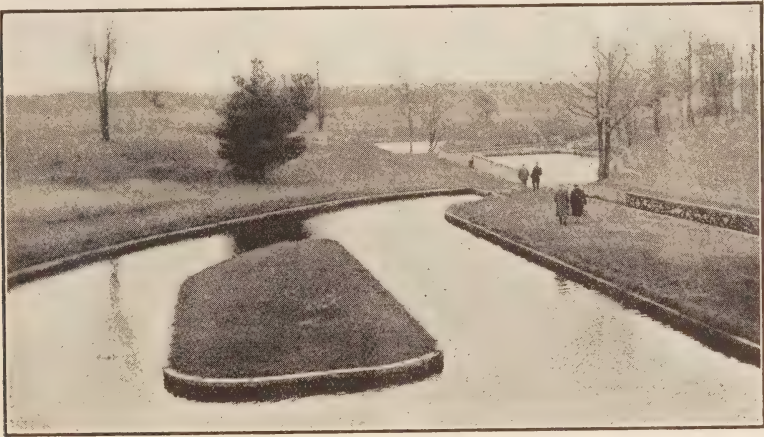
2.—REARING PONDS

By this term is meant enclosures, natural or artificial, cement or wooden structures, semi-natural or modified stream runs, which may be used for the artificial retention and feeding of young trout from the stage at which they have to be removed from the hatchery troughs to the time when they may be distributed.

At the present time in hatchery practice generally, trout are handled at all stages from the green eggs to the adult fish. A preference is being shown which may be described as a tendency to avoid planting eggs or fry, and within reasonable limits of convenience and expense, to work in the direction of distributing fingerlings, large fingerlings, small fish of five or more inches at the end of

the first summer season or beginning of the following spring, or two or even three year old fish. This practice has apparently been worked out mainly on a basis of experience, but is in line with current scientific criticism of the fry planting operation.

In this practice, the growth of the fish from the fry stage is accomplished through the use of the rearing ponds. It may be noted as important in this discussion that the easiest and least expensive way to handle young trout is to distribute them in the fry or small fingerling stage, in general to use only the interior or trough facilities of the hatchery building. Rearing ponds are a more expensive addition but in the opinion of fish culturists are necessary for growth and control purposes. There has been no particular development of these ponds in Ontario, except at Normandale Creek, though they are common equipment in connection with United States hatcheries.



An artificial pond gradient at Michigan State
Hatchery, Paris, Michigan

In many cases, these ponds have been developed at considerable cost as artificial cement structures. The State hatchery at Corry, Pennsylvania, has 106 cement ponds, while the State hatchery at Hackettstown, New Jersey, has 168 cement ponds of a total surface area of 119,000 square feet. Such ponds or tanks are undoubtedly of great service because they bring under control all the factors of water supply, circulation and rounding up of the fish that are necessary for feeding, sorting, grading or sanitation.

In other cases, less costly pools and runways are being used. They are produced by artificial ditching of spring runs and similar devices, and these ponds, while obviously less controllable, have the reputation of being fairly satisfactory for the purpose.

In the opinion of the Committee, one of the first improvements to be thought of in connection with the Provincial hatcheries is the provision of these ponds. Very little construction may be expected in connection with existing hatchery sites. In the selection of new sites for ponds, new hatchery construction should by preference be included, though any possible sites available on Government owned property could be utilized if reasonably convenient to

hatcheries. In any case, absolute control of a spring source, partial or complete local control of a stream run, physical and chemical examination of the water, including temperature control throughout the year, and engineering requirements for volume and gradient should be rigidly checked.

3.—SPAWNING PONDS

By this term is meant water enclosures of appropriate dimensions, excavated or banked ponds, suitable for spawning of small and large-mouthed black bass. The artificial culture of these species, and the continuous use and method of management of such ponds, is now an established practice, and, as pointed out elsewhere in this report should be greatly expanded in the Province.



Michigan State Hatchery, Paris, showing the utilization of a flat area of moderate gradient and spring supply for layout of ponds and runs.

4.—RETAINING PONDS

These are ponds, excavated or produced on natural runways of spring origin or spring component, used for older stages of parent stock of either trout or bass. The construction or improvement of this type of pond, which may be supplemented by natural bodies of water, will have to be greatly extended in Ontario in order to give freedom and leeway to the handling of older fish, mainly for propagatory purposes.

In this connection, and in view of certain criticisms that have been made concerning bass propagation in the Province, the Committee has made enquiries especially as to the control and handling of adult bass. There appears to be fairly general agreement that parent bass may be taken in the early spring from the wild state and successfully nested, but also that better control can be exercised by retaining these fish over winter, in which case the fish are more thoroughly acclimated, parasitization may be checked up, and temperature conditions, necessary to spawning, can be conveniently maintained. The relation of adult bass to supply of fry in semi-supervised lakes will be discussed in a later section.

5.—NATIVE AND INTRODUCED SPECIES

There is at the present time in Ontario and elsewhere considerable difference of opinion as to whether the game-fish which are to be propagated should be exclusively species native to the waters, further as to whether in the case of species native to the waters, transfer should take place from one region to another in which conditions are climatically or geographically different. In former years, a great deal of indiscriminate planting was done because foreign species, known to be good game-fishes, were desired or fancied, and without any particular consideration of the greater desirability of encouraging native species or protecting them against undue competition. Pennsylvania, for example, concentrates upon speckled trout, the native species, while New York and Michigan propagate extensively not only speckled trout, but also the brown or German and the rainbow trout with different degrees of protection for the native species as regards original and modified characteristics of the respective waters in which the various species are planted.

In Ontario, all three species are in some way represented in natural or public waters, and already the situation as regards their general desirability is somewhat confused. Rainbows ("Rainbow" Steelhead), for example, have invaded the lake waters in the region of Sault Ste. Marie from United States plantings, and have extended eastward into the North Channel and northward or northwestward along the Superior shore. These fish are generally held in high esteem. From what the Committee has been able to learn in this region they are not credited with injurious action upon the native speckled trout. Both rainbow and brown trout have been propagated by the Province, and there have been private plantings with subsequent escape of the fish into public waters.

In all probability the cultivation of the introduced species in the Province is desirable, but indiscriminate hatching and planting are not. We should have, at least in the southern or southwestern part of the Province, and probably throughout, a definite "trout policy," and the regulation respecting the taking or use of fish for stocking should be framed so as to prohibit the planting of non-native species in any other way than under the direct supervision of the Department of Game and Fisheries.

So much doubt has been expressed regarding the desirability of brown trout that the further propagation of this species should be given careful consideration before further planting is done.

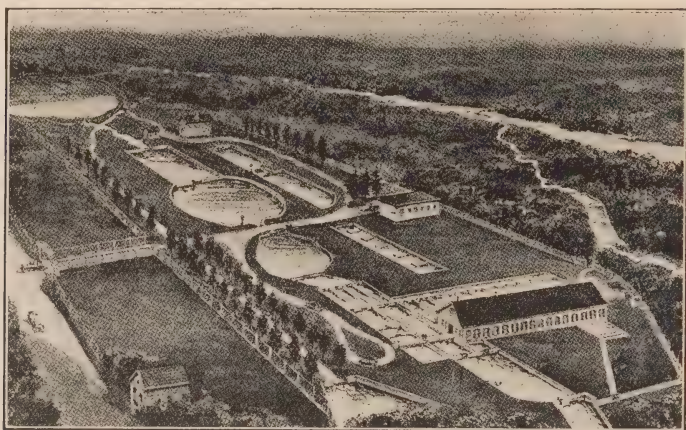
In addition to the question of native and non-native species, there exists in the Province considerable feeling against the transfer of eggs, young or adult fish, especially of speckled trout from points outside the Province or from remote regions inside the Province. In all probability this sentiment is mostly a matter of local pride, but in view of the manifest differences of a physical nature existing as between different regions, more thought should be given to the probability that in a given region the fish most likely to thrive will be those of local origin, the relation of these in an hereditary sense having already been established.

6.—TRANSPORTATION

The successful transfer of fish at whatever age is an essential part of the stocking process. It requires continuous attention and a great deal of foresight. Fish require continuous oxygenation, are extremely sensitive to temperature changes, and the surface layer of the body while resistant to touch is so delicate that even a slight abrasion or adhesion to a dry surface may easily result

in fungus infection developing later but undetected either during transfer or at planting. Unless the transfer and planting are carried out expeditiously and by experienced men, survival is likely to be at best a matter of chance. Good equipment and means of transportation are essential.

Unless the ordinary facilities of railway express cars are relied upon for carrying cans and attendants, a method which has many disadvantages, the practice has been to use special railway cars fitted with tanks or with accommodation for cans, and with accessory facilities for ice, compressed air, and living quarters for the crew. This method is now being supplanted by truck transportation which has many advantages. Aeration is assured without special effort by ordinary road vibration. There is direct contact both with the hatchery and as a rule with the place of planting. Continuous, practically



Paradise Brook Trout Co., Cresco, Pa. Layout of Hatchery Buildings, Ponds and Water Supply.

non-stop passage for long distances is possible, while comparative figures of cost demonstrate that truck transportation is relatively much less expensive than railway transportation.

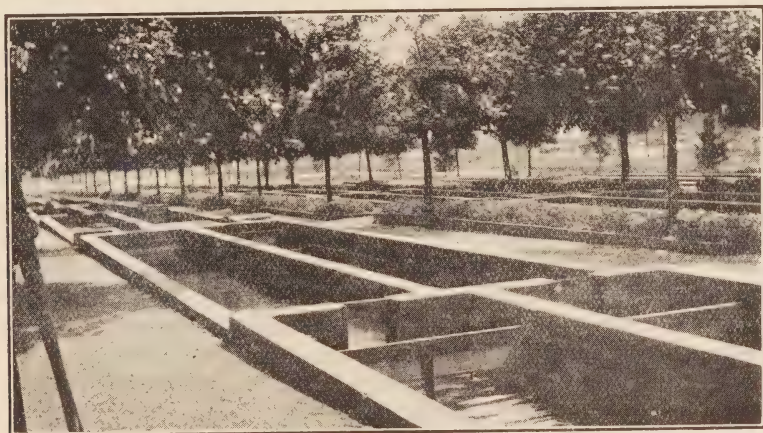
In Ontario, as will be seen from the reports published annually by the Department of Game and Fisheries there has been in previous years a relatively large and varied distribution of fish of different species, fry, fingerlings and adults, and it appears that the Department has had to rely mainly upon facilities furnished by the railways and upon the tank car "Beaver" which was originally remodelled for the purpose but is now in a dilapidated condition and has been condemned. The Committee understands that a new car is in prospect, the addition of which to the equipment would appear to be very important to the Department's work.

It may be observed that in the States visited by the Committee and where in most respects the distances to be travelled, while considerable, are not so great as would be the case in Ontario, there is still a good deal of anxiety as to possible injury to fish in transportation. It is a phase of the propagatory work that needs very careful handling, and the question as to how far the truck method might be used in Ontario, not for more ordinary transfers, but for long range planting, is worth consideration.

At the present time, the Province is engaged in highway construction on a large scale. It may be assumed that in addition to the facilities at present available for tourist movement, our highways will make older tourist resorts more easily accessible and will greatly extend the accessible water areas towards the northern and northwestern sections of the Province, with consequent deterioration of the game-fishing. Under these conditions a truck transportation system which would, so to speak, meet the motor traffic on its own ground might be of inestimable value in maintaining supply.

7.—PLANTING

The placing of fish, especially of young fish produced under artificial conditions in the hatcheries, in natural public waters requires a great deal of care and foresight. As a step in the propagatory process, planting is highly important. It will be generally understood that no expense in the maintenance of hatcheries



Cement construction of ponds at the New Jersey State Hatchery, Hackettstown, N.J.

would be justified, and no amount of egg-hatching or reporting of numbers distributed would have any significance if planting operations were not carried out in such a way as to insure that a considerable percentage of the young would grow up and reproduce their kind.

Current criticism of hatchery operation is neither directed at the hatchery process nor at re-stocking in general, but at the practice of fry planting and on the score of its results. There is a good deal of confusion in the situation, leading to opinions both plausible and unconvincing relative to success or failure of planting operations.

The basic requirements of successful planting would appear to be, first, that the fish should be in good condition on arrival at the place of planting, second, that they must be adjusted to the temperature conditions of the water, third, that they must be placed in waters which are known to be biologically suitable, and, fourth, that they must be liberated in situations where they can meet the first requirements of food supply and evasion of enemies.

As to how these conditions have been or can be met, it may be pointed out:

(a) Considering the billions of eggs that have been hatched and distributed in Ontario in the past sixty years, comparatively little information has been reported as to results.

(b) In view of the fact that many, if not most, of our older waters have been continuously fished and occasionally planted, thus confusing the general situation, every specific case of planting or re-stocking which was a conspicuous success or a definite failure should be looked up in the records, separately tabulated and an attempt made to ascertain from the investigation of the waters themselves the probable causes.

(c) In addition to the usual practical arrangements for the distribution of fish, there should be a scientific or technical inspection of the conditions of planting. This inspection, if superficial, is not likely to be of more than very moderate value.

(d) Results are likely to depend to a large extent upon the age at which planted. At the present time, maskinonge and pickerel have to be planted in the fry stage. The consensus of opinion is that trout and bass should be planted in late fingerling or older stages. The respective abilities of hatchery reared fish to take care of themselves when planted in natural waters at different ages have not been adequately demonstrated, though both on experimental grounds and from practical experience fry planting is in disfavour.

(e) The factors determining suitability of waters for planting purposes are too intricate and the water areas too varied to permit of thorough inspection at the time of planting, and should, therefore, by the adoption of survey methods, be studied in advance.

Several possible sources of failure and of economic waste in fish planting are currently noted by fish culturists as commonly associated with Government distribution. The most important of these is the distribution of fish to public waters on personal application of individuals, who may not be able to supply the accurate information called for in the forms of application provided, who may demand fish for waters quite unsuited for them, or for waters already stocked. In such cases the possession by the authorities of information independently acquired and recorded concerning the waters is essential, while the service arrangements should be such that refusal to fill applications would not be open to question if based on technical grounds.

A second defect arises from the hitherto common practice of delivering fish which would be planted by individuals not conversant with the proper procedure. In view of current doubts as to the success of planting operations, it is unlikely that indiscriminate planting by uninformed individuals will be continued anywhere, more especially in public waters, the planting of which should be carried out solely by Government officers, or by individuals, known by the Department to be capable of properly executing the work.

8.—SURVEY REQUIREMENTS

Mention has already been made above to the necessity of having at hand scientific and technical information concerning the natural characteristics of our waters. Such information is an important adjunct to planting operations and is also fundamental to other phases of game-fish conservation. It is the type of work usually designated as "survey" and consists in the collection and recording of data and mapping of any area under consideration as regards its physical, chemical and biological peculiarities.

In the adjacent United States survey work was in most cases organized as State service years ago, and more recently has been developed in connection with the particular modern requirements of branches of the State service, including game and fish regulation, with the co-operation in many cases of the scientific laboratories of the State Universities and other institutions.

Taking into consideration the extent of land and water areas in Ontario and the magnitude of the task involved in completing the necessary investigations, comparatively little work of this nature has been carried on in relation to game and fish conservation. On the game-fish side, however, the necessary foundation was provided by the Provincial Government in 1925 through the selection of a biologist for the supervision of fish cultural operations including the study of the suitability of waters. The development and extension of this type of service, with its available adjuncts, will likely give rise to a stable organization for survey and other fish cultural purposes in the Province. It should be pointed out, however, that there is already abroad some expectancy that the whole matter of the suitability of waters for fish planting can so-to-speak be determined at a glance. This sentiment can only result in disillusionment. It would be best to realize that while immediate improvement may be expected in some directions, the development of survey organization adequate to the purpose will be a long and arduous process, and further that as elsewhere explained we are going to have to make up in the future for a good deal of investigation neglected in the past.

Elsewhere in this report the method of organizing survey work to suit modern conditions of game-fish conservation is briefly outlined. But it may be pointed out here that the possession of data of the kind referred to is bound to affect the future work of game-fish planting very materially and therefore that the relation of survey work to fish propagation in general should be given practical recognition.

9.—CLOSURE

The principle of closing public waters to game-fishing has not been applied in Ontario to any great extent. There are two phases of the matter that are important, and in most respects different in purpose, namely, general closure as a public right, and temporary or local closure for the rehabilitation of the supply.

General closure.—At the present time, the prevailing attitude towards game-fishing is that anyone may fish anywhere in public waters subject to restrictions imposed by the regulations. The privilege of a citizen to attach public property in one way or another is looked upon as a sort of inalienable right unless specifically removed by legislation. It does not usually occur to him that the game and fish are public property and in general not to be taken or destroyed.

The Committee observes that in the State of Michigan it has been deemed advisable to protect all the inland game and fish resources of the State by means of a general closure regulation which authorizes the Conservation Commission to close hunting or fishing for a period of five years in the State as a whole or in any local area, with such secondary modification or opening as may be deemed advisable. This measure is similar in operation to certain minor closures which have been made in Ontario for individual land animals. In Michigan the broad applicability of the regulation has apparently been of great value

in the direction of giving authority for more general control of factors possibly leading to depletion. It will be observed, however, that it has a still broader implication, namely, as a reminder to citizens generally that the State reserves completely during five year periods at least the privilege of hunting or fishing.

In various discussions which have taken place in Ontario, and more especially at the public meeting held by the Committee in Toronto, many references were made to the necessity of arousing public opinion on game-fish conservation. Public opinion, however, as represented by the sportsmen and conservationists of the Province, can go no farther than to assure the Government that constructive legislation will be welcome. There is still left that element of the people which demands personal privilege at any cost. This element, by reason of disregard of the regulations designed for the protection of fish life, constitutes a real menace by thoughtless or wilful destruction of fish on the spawning beds in spring or fall. It is this part of the resident or non-resident population in any case which is most in need of education and is least likely to profit by it. It is the problem of game-fish piracy which no one, even if conversant with local situations in which it occurs, knows exactly how to solve.

In this situation, the adoption of a principle of general closure might be of effect. It may be taken for granted that even if not put into operation, such a regulation would be strenuously opposed. On the other hand, it would serve the useful purpose of inviting discussion as to who owns the game-fish, and would make clear that permission to take fish is a privilege to be awarded and not a natural right.

Temporary and local closure.—Apart from the question of setting aside natural waters permanently as sanctuaries for maintaining stocks of adult fish or production of young, there is the question of temporary withdrawal from game-fishing of public waters for purposes of rehabilitation. In view of the fact that this type of closure has not been used to any great extent in Ontario, presumably because considered unnecessary or because of opposition, the essentials of the process should be considered.

It is a rather remarkable fact that what appears to be a perfectly obvious necessity as applied to land animals, namely, that if large animals are required, time must be allowed for their growth, has not been generally recognized as equally applicable to fishes. It is probable that in all waters over-fished or excessively fished and where the size is gradually diminishing, re-stocking without closure is not likely to succeed more than to the extent of adding to the perhaps already large number of undersized fish.

How the requirements of time for growth, amounting on the average to three years or more can be met, without serious dislocation of the game-fishing or trade dependent upon it is naturally a serious problem. It can, however, be solved by setting aside out of natural lakes, bays which are closed for the purpose, or by a general agreement among local or tourist residents on the basis of which the Government would close the area temporarily. Again a similar result might be obtained by rigorously reducing the number of days per season when fishing would be allowed. The principal consideration, however, is that some such system or policy is necessary, and the need will be quickly demonstrated if the amount of tourist fishing is, as it promises to be, greatly increased. Further comment on the question of closure will be found elsewhere in this report in relation to game-fish sanctuaries.

10.—SANCTUARIES

The sanctuary principle consists in having an area completely removed from public or private use. As applied to land animals the value of the sanctuary can easily be seen, both in the direction of localizing wild animals under conditions of full protection, where they may easily be seen and enjoyed by the public, and for the purpose of utilizing the natural increase for distribution into and population of the surrounding regions. By a slight variation of the principle, the sanctuary may be used as a source of supply from which stock may be drawn by the public service for purposes of re-stocking.

Fish sanctuaries have the same general significance as sanctuaries for birds or mammals, but allowance must be made for the obvious differences implied as between water and land conditions. Fish sanctuaries are negligible



Cement construction of ponds at the Pennsylvania State Hatchery, Corry, Pa.

as places to observe fish life, and except when they are parts of larger areas with open communication have no value from the point of view of diffusion of the surplus stock into surrounding areas, diffusion in all enclosed or screened areas being prevented by barriers. It is conceivable that there might be fish sanctuaries, on the land or shore portion of which hunting is allowed for the same reason and with the same justice as exists in the case of land sanctuaries where fishing is allowed in the general area. In fact, some public education is necessary along this line, because, while there is a general understanding of the necessity for protecting or saving both trees and land animals in parks and forest reserves of one kind and another, there is conversely a widespread and mistaken notion that the fishing will take care of itself, and therefore no particular concern need be felt about it.

In Ontario, in the near future, fish sanctuaries will be necessary for two important purposes. One of these will be in order to give the game-fish of a depleted water an opportunity to grow. It is presumed that this will be a public water in which game-fishing might ordinarily be expected to take place. It would be closed for a period, in the way mentioned elsewhere in this report, as a device for preventing sustained fishing. The second case will be represented by permanent closure, and since a permanently closed water is of no

direct value for public fishing, unless connected with a larger body of water, the purpose of having such sanctuaries will be on the basis of the Government using them for stock and supply.

It is practically necessary for the encouragement of both small and large-mouthed bass that such reserve waters be employed. Even now, in many regions, the maskinonge is in a similar position, and as time goes on it is probable that other species, for example, pickerel, may be in the same position.

There are several ways in which reserve waters may be obtained. By reservation of smaller lakes at various points of the Province the Department might declare or establish a number of sanctuaries. The selection of these sanctuaries would depend upon the species of game-fish concerned, it being assumed that the species are natural to the water selected. It would be advisable, for example, in relation to bass, that many smaller lakes in various parts of the Province should be set aside when situated in the vicinity of larger tourist waters which they may be made to serve by transfer of fish from one to the other or for transfer to other local waters that can temporarily be closed. Some six sanctuaries of this nature have already been established by the Department of Game and Fisheries in Ontario. In bass waters such as those of the Georgian Bay, where intensive fishing has probably reduced the number of parent fish to much less than needed, the addition of adults followed by temporary closure of sections of the water would be advantageous.

Obviously, the chief difficulty in the way of establishing sanctuaries is the fact that care-taking supervision of some kind must be maintained. It is probable that in most regions in Ontario the question of land value, or necessary improvement for purposes of making the sanctuary effective would not be an important issue. On the other hand, in southern Ontario, both land value, and in the case of speckled trout reserves, also construction and maintenance would be important items.

As regards supervising service, it has been represented to the Committee that such service could be provided in many cases free of all expense to the Government, through Associations, municipalities, individuals or clubs already employing service, if there were any assurance that the creation of the reserves could be authorized by Government action. The conditions commonly complained of by persons who have already devoted thought and effort to the matter are, first, that having no right to reservation or prevention of fishing in public water neither individuals nor local bodies can maintain protection because of other individuals taking advantage of the situation; second, that there has not been sufficient public and Governmental interest shown in the matter to make it a live issue; and third, that supplies of fish for stocking have not been available.

Assuming that the primary responsibility of maintaining the sanctuaries would fall upon the public service, and that in many cases individuals or Associations might readily agree to maintain supervision and afterwards be unable or unwilling to continue to do so, it would be well in those cases demanding outlay on the part of the Government for construction or other purposes, to specify the minimum time that the water is to be closed or supervision locally provided.

As indicated elsewhere in this report in the discussion of arrangements for closure, it is not possible to draw a sharp line of distinction between what would be regarded as a sanctuary and what would be regarded as a water closed for some years to encourage growth or provide stock.

It would be possible on various Government owned properties to maintain fish ponds or trout runs with little expense. Reforestation areas would, in many cases, be well adapted for the purpose.

It may be taken for granted that, in forest reserve areas where there is game-fishing subject to the ordinary restrictions of minimum size and numbers, the fishing is going to deteriorate rapidly unless some closure and possibly re-stocking is carried out. In most cases the important consideration would be local closure, and an ideal method to follow would be to open lakes or streams in groups so that there would always be some closed and others open.

Farmers and other land owners, who control land rights on the course of and more especially about the headwaters of trout streams could be encouraged to provide protection for the fish on some such basis as permanent closure of the upper reaches and public fishing in the lower.

Finally, in addition to local fish and game Associations, municipalities should be encouraged to designate areas for sanctuaries, which would then be set aside by Government action. Except in the case of larger municipalities, where the game and fish for the most part have already gone by the board, there has been no great recognition of the part municipalities might play in conservation. More especially perhaps in county organizations and, northwards, in district organizations, the assumption by them of conservational arrangements and responsibilities would go a long way towards establishing public opinion in favor of sanctuaries and related matters, if for no other reason than that the advantages of conservation in relation to local trade would be under discussion in local councils.

11.—AQUICULTURE AND AGRICULTURE

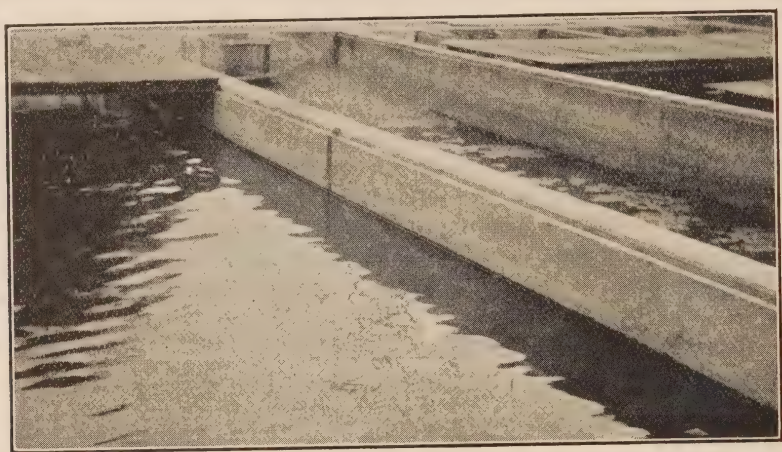
In the course of the present investigation, it has been suggested by some that there should be a closer relation between the game and fisheries service and the Department of Agriculture. The basis of this suggestion is the natural alliance presumed to exist as regards the outlook of both branches, in other words the interests in common of agriculture and aquiculture.

The practices connected with the growing of land animals, especially of domesticated animals, with greater or less control of the various factors concerned, has an obvious parallel in the production of fish under similar conditions.

Aquiculture, however, appears to represent mainly a principle, namely, that water areas should be handled for maximum production of fish or other aquatics in the same way that land areas are used for maximum production of domesticated animals and field crops. In this sense all fish cultural work is broadly aquicultural in nature. The difference is that agriculture has gone through all the stages from dirt farming to applied science and fish culture has not. The alliance or association suggested as between the two fields may therefore be, either as above indicated that the same developmental plan in its practical, educational and scientific aspects should be applied to both, or on the other hand that a particular advantage may be sought in encouraging fish culture as an accessory method of production among farmers and others capable or conveniently situated for handling it. So far as the Government service is concerned, while it is true that in various parts of the world agriculture and game protection or propagation are frequently to be found under common administration, it is probable that the essential and historical importance of agriculture and the incidental or secondary requirement of game service as relating in some way to animal life, rather than essential community of interest,

was the basis of older organization, and that in any case there are no particular conditions in Ontario indicating or favoring that association in an administrative sense.

It will be recognized that one of the essential elements in the matter of encouraging aquiculture, or working along aquicultural lines for production or conservational purposes is the same element that appears in agriculture, namely, personal ownership or private enterprise. The expectation that aquiculture maintained on the present public basis should have the same development as agriculture leaves out of account the basic fact that agriculture has been successful in obtaining increased production because its products and improvements have always had private value. Game and fish production may be and commonly are, successful on the same basis.



Cement construction of ponds at the Pennsylvania State Hatchery, Pleasant Mount, Pa.

This, however, leads to another question, and a very difficult one, especially in Ontario, which apparently many sportsmen, farmers and others have considered, namely, the extent to which aquiculture can prosper under conditions of open public fishing, or the part that might be played in general conservation by encouraging private owners more especially in the southern part of the Province to engage in fish culture.

12.—PRIVATE FISH CULTURE

Private fish culture has in it certain elements of public advantage. It provides food or sport to people who otherwise would have to utilize public waters. It satisfies a certain element of people, who live in industrial centres where local fishing is otherwise inaccessible and who cannot take time for vacations. It increases the number of establishments in which fish growing is going on and makes possible exchange or transfer of stock. It invites the attention of sportsmen who become interested in growing fish rather than in simply catching them, and creates a constructive sentiment in favor of general attention to public waters. It encourages the ordinary land owner to do something for himself in adding to the fish supply.

The outstanding difficulties which lie in the way of private fish culture at the present time in Ontario are, first, that all wild and semi-wild animals,

including fish, are public property, and second, that in general, land rights do not include water rights. There are all degrees of difference between ponds and creeks lying upon privately owned lands, of which it might be said that while no private ownership exists, exclusive use would not be questioned, and lakes or rivers, which are not only navigable in the usual sense, but in respect of which the owner of an abutting property has no especial rights.

The traditional practice and policy of the Province of Ontario is in the direction of keeping all fishing areas open to the public as against the practice of leasing or of otherwise disposing of special or exclusive rights to private individuals. The Committee assumes that this policy will be maintained.

The question is, therefore, whether, in view of the advantages stated above, there is any possibility of improving the game-fish situation along lines more or less involving private control.

Farmers, for example, could, with little effort, be encouraged to engage in fish rearing and could be instructed in the method of making ponds, or improving ponds or creeks. Such waters would prove useful for providing food, valuable alike for variety and convenience. In the case of waters large enough to attract public attention or streams running through several properties, farmers could not reasonably be expected to be interested if subjected to continuous annoyance from individuals invading, trespassing on or damaging their property. On the other hand, groups owning the land along streams might readily agree to protect the headwaters or upper reaches, provided fishing were permitted only in the lower portion. The same would be possible of lakes not accessible by public roads, provided public fishing were restricted perhaps to a certain number of days.

Private angling clubs and Associations could be awarded leases or holdings on stream runs, provided that they engaged in fish culture, and under other conditions hereinafter mentioned.

Speckled trout fishing in the southern part of the Province is, generally speaking, only of local advantage, no tourist element being concerned. Accessibility in respect of good fishing water is of prime importance, and for this reason as well as on account of the public policy of the Province, no more than a moderate number of private establishments could be admitted. In view of the fact that privileges would be awarded on stream sections, which would otherwise be open to the public, and that such places might otherwise be used for public fish cultural operations, it is possible that the award of rights might advantageously be coupled with the condition that ponds should be constructed, reserved and supervised for the purpose of assisting in the re-stocking of public waters, or more especially re-stocking the lower reaches of the same stream system which would be open to public fishing.

It will be observed that the whole question of private control and such public advantage as may be expected of it, is made especially difficult because of the lack of definition of water rights. At the present time the protection afforded to anyone trying to maintain fish in water on privately owned land is apparently confined to arrest for trespass. Trespass, being a very minor offence, is likely to be largely minimized both by the culprit himself and by the Court. It would seem to be a comparatively simple matter to provide legislation that would ensure that those exclusively engaged in growing the fish should have the exclusive privilege of taking them in all waters of insignificant size and surrounded by privately controlled land, and not in general subject to claim for public use or convenience.

GENERAL CONSERVATION

Under this heading is considered the control of various conditions leading to depletion and the type of educational policy which should be adopted in order to bring about improvement along educational lines.

1.—SPEARING AND NETTING

Protests against the use or misuse under certain conditions of spears and of nets, and more especially with reference to the leniency observed as to the possession of such apparatus in view of the ease with which it can be illegally applied, have been a common and fairly general feature of this investigation.

Spearing is resorted to in the spring and fall when spawning fish are in the shallow water. Even if the fish are commercial fish such as lake trout and



Daphnia Pond at New Jersey State Hatchery,
Hackettstown, N.J.

pickerel in Great Lake waters where there is no close season, spearing is objectionable because of the destruction of parent fish. Spearing of lake trout and pickerel in Great Lakes waters so completely Canadian as Georgian Bay and most of the North channel is especially objectionable because of the game-fish importance of these waters as regards one or both of these species, and especially in view of the unfortunate lack of international regulations protecting these fish in the Great Lakes. Spearing under permit has been strenuously objected to in connection with ice fishing in Hamilton Bay by the Hamilton Anglers' Association because of the alleged destructiveness to the pike and other fish worthy of protection. Illegal spearing in inland game waters during spawning time or in winter through the ice has been generally complained of as a method used by poachers, extremely difficult of detection, and very destructive to game-fish.

The Ontario Federation of Anglers and some other independent associations have put themselves on record as opposed both to the use of spears and to their possession at any time. The Committee is of the opinion that their contention is in the main correct. The only exception of which the Committee is aware is the possibility that injustice may be done to settlers in respect of spearing in bays off the Great Lakes, and in respect of spearing suckers during the spring

run. The advantage served by such privilege, however, appears to be slight in comparison with the potential damage made possible through the possession of spears, while the advantage is obvious of having a regulation that cannot be misinterpreted. The Committee therefore recommends that, if necessary after due notice has been served, the taking of fish of any kind by spear be prohibited in the Province, further that the sale or possession of such implements be prohibited, and that the ownership of them be regarded as *prima facie* evidence that they are being used illegally.

Apart from the legal use of nets as implied in the landing nets used by anglers, the minnow dip nets used for taking bait minnows, and various types of nets used legally under permit or license for commercial purposes, there is apparently going on in the Province a good deal of operation of gill nets in short lengths, used for taking fish of any kind, especially in inland game-fish waters.

The destructiveness of such nets is obviously very great. They may be used to capture bass and other fish which have been impounded in shallow bays or are moving in shallow runways. They may be used by hunting parties unwilling or unable to obtain fish by angling. They may be used for the capture of fish on spawning beds in spring or fall, whether or not the fish themselves may be legally captured. As in the case of spears the existence of such gear is likely to increase greatly the destruction of game-fish. The Ontario Federation of Anglers and other bodies have asked that gill nets used under conditions as described above should be prohibited. Unless, as seems unlikely, the Department can control them when restricted to use by settlers under special permit, their general prohibition should be brought about. So far as the Committee is aware, no useful purpose can be served by permitting legally or by failure to bring under regulation their use. It is, therefore, recommended that the sale or use of gill nets of any kind, except those used and licensed for commercial waters by commercial fishermen, or those used by the Department for its own service, or for scientific and educational purposes under permit from the Department, should be prohibited and that the possession of such nets should be *prima facie* evidence that they are being used illegally.

In this connection, it has been represented to the Committee that the Department of Game and Fisheries should have on record every piece of gill net that is being operated during any current year in the Province, and that dealers and manufacturers should be required to report their sales. The fact, however, that the importation of such gear into the Province is permissible would prevent such a regulation from having the force and applicability intended.

2.—DYNAMITING FISH

Among the representations made to the Committee concerning illegal taking of fish, there is the complaint of killing and injuring fish in large numbers by the explosion of dynamite. It is an old offence and one that is difficult to overcome or detect unless an overseer happens to be in the immediate vicinity. Dynamite is commonly used in construction work, and on that account becomes widely distributed in northern camps. It is, in all probability, for the most part individuals engaged in one way or another with construction work or timber operations who are immediately concerned, and the fact that operation may take place in the vicinity of little fished or almost virgin lakes, and that the fish in these lakes come in shore at certain times of the year, doubtless give rise to the idea of obtaining fish by the dynamite route.

It is unfortunate that in the regulations applying to fish the prohibition of taking fish by any other method except commercial license or angling, should be the only, or even the principal way of stating the requirement. In all probability, there should be included, both in the Ontario Act and in the Dominion regulations as reported in the Department booklet, a definite prohibition and penalty prescribed against the use of dynamite. It is possible also that the use, sale or handling of this material could be regulated so that there would be less chance of illegal operation.

3.—NIGHT FISHING

So far as the Committee is aware, angling at night is not prohibited except to the extent implied by the Dominion regulation, prohibiting the use of artificial lights or taking fish by any means except angling. It would doubtless be in the general interest to have defined in the regulations the prohibition of angling at night. This would have the advantage of enabling overseers to exercise more direct supervision, because of the ordinary restriction of angling to the hours of daylight, and further of confirming illegal operation in case night fishing is being carried on.

The setting of night lines and other methods of taking fish not authorized as "angling" should be prohibited by a special regulation rather than by the negative implication that they do not constitute angling as defined in the regulations.

4.—REMOVAL OF COARSE FISH

Representations made to the Committee frequently refer to the advisability of removing coarse, rough or trash fish from the waters. The grounds upon which removal is urged are (1) destructiveness to game-fish, (2) destructiveness to game-fish spawn, (3) competition with game-fish for available food, and (4) predominance in game-fish waters where they remain in large numbers while more worthy fishes are removed.

Information bearing on this matter is in a very unsatisfactory condition. There is no common understanding as to what constitutes a coarse fish. The popular evidence of their destructiveness is generally unreliable. There is little accurate knowledge available from technical studies, and there is at least some commercial interest in finding or possibly inventing reasons for their capture.

The species, some of which might be included in the category of "coarse," "rough," or "trash" fish, should, if any action is to be taken concerning them, be scientifically defined. They would perhaps be pike, perch, rock bass, sunfish, bull-heads of different species, dog-fish, gar-pike, ling, and different species of suckers, excluding a considerable number of smaller shallow-water species commonly designated as "minnows". In the general understanding, the fish that are pre-eminently coarse fish are the suckers, especially the common sucker, *Catostomus commersonnii*.

The common sucker inhabits both shallow and deep water. It is not commonly taken on the angler's tackle, but is a common element of the commercial fish catch in almost any kind or depth of water. During the early spring it ascends streams following the pickerel which ascends for the same reason, namely, to spawn in the upper reaches. The sucker, being a ground feeder, is presumed to feed upon the pickerel eggs. In a similar way, the sucker appears a little later in the shore swamps and over the bass nests and is set

down as a consumer of the bass spawn. Also in the fall, the sucker is found on the shoals where lake trout are spawning. There is thus a very close relation between the spawning of valuable fish and the presence of the sucker.

As a presumed destroyer of spawn, the sucker is in general disrepute. On the basis of ordinary habits and associations circumstantial evidence is entirely against it, but unfortunately for clear understanding of how the coarse fish question should be handled, the claim that the sucker actually destroys spawn has, so far as the Committee is aware, not been substantiated.

On the other hand, the two to four-inch young of the common sucker make up a fair proportion of the "minnow" population of inshore swamps. These young suckers are eagerly taken by bass and pickerel and it may be presumed that they have significant values as food for game-fishes. Further, in defence of the sucker, the opinion of Mr. W. H. Martin, Game and Fishery Overseer at Kenora, may be quoted. The spawn of the pickerel has a tendency to adhere in dense masses with resultant suffocation of unexposed eggs. In Mr. Martin's opinion, the presence of the sucker during the spawning of the pickerel may have the good effect of breaking up these masses and thus ensuring oxygenation of larger numbers of eggs.

It may be remarked that in consequence of many requests made by the Committee for information on the action of the sucker in destroying spawn there may be in the near future more accurate observations reported upon the actual finding of the eggs of pickerel, bass or lake trout in the sucker's stomach.

At the present time the question of what should be done with the sucker appears to be reduced to the rather uncertain ground that removal may be indicated or justified because of excessive numbers.

As regards the taking of the sucker, with adequate protection to other fish of a better sort, opinion is divided as to whether such removal should take place under license or under Departmental supervision. In view of the likelihood that game-fish are spawning, the Committee is of the opinion that the work should be done under Government supervision.

In this connection it may be pointed out that in the State of Michigan, in which many conditions exist analogous to those in our Province, the law provides not only for times of close season for suckers in the Great Lakes, and times of capture in the early spring in inland waters, but also for removal of these and other rough fish, the removal being effected by permit after petition from local residents, the work being done under supervision of the State which also receives a percentage of the proceeds of sale.

The pike may be eliminated from the list, especially as it is beginning to be recognized as a game-fish.

Bull-heads of the ordinary small varieties are commonly complained of as spawn eaters, but again on very uncertain grounds. As regards their position otherwise, they have some value both from a food and angling standpoint. The young are common inhabitants of inshore swamps but because of their formidable spines probably do not serve to any great extent as food for other fishes.

Dogfish and garpiki are both destructive to other fishes, and their young probably have no food value. Their removal would entail operation of nets in the inshore bays which, if carried on during the early part of the summer, might easily result in damage to the nests of bass.

Rock bass, sunfish, and especially perch, are suspected of piratical tendencies in relation to the young of bass in inshore swamps or bays. While sunfish are mainly insect feeders, it is possible that rock bass and perch do some harm

to the young bass. It is of some importance, however, to realize that these fishes, while unwanted where there are better ones, are somewhat of the rank of game-fishes. In view of the fact that in many of the States they are protected and artificially propagated, too much haste in getting rid of them in Ontario waters would not appear to be justified.

In general, the proposal to remove the coarse fish does not appear to the Committee to be as yet sufficiently well-founded to justify immediate or extensive action in that direction. It would seem on the whole better that the Department should continue to collect the necessary evidence bearing upon the point in a dependable scientific way and to later frame a method of procedure on that basis. An exception should be made for the removal of pike from trout waters, and of ling and carp from any waters. All operations for removal should be conducted solely under Governmental supervision.

In connection with this matter, the Committee has received certain requests for permission to take coarse fish commercially in inland waters. These requests will be referred to the Department. Some comment on the coarse fish question will also be found elsewhere in this report in the discussion of inshore commercial fishing privileges.

5.—MINNOWS

The situation as regards the taking and use of minnows has an important bearing upon the game-fish situation. This bearing is not commonly recognized and in many ways the significance of the minnow population is likely to be misinterpreted.

Minnows are more exactly soft-finned fishes of the general carp or goldfish type which may, under exceptional conditions, grow to a considerable size and weight, but as usually found are from about an inch to some four inches in length when adult. They are common inhabitants of shallow runways and swampy bays. Such waters, however, contain a variety of other fishes of small size, both adult and young, including log-perches, darters, miller's thumbs and sticklebacks, all of which are small species, as well as the young of suckers, small and large-mouthed bass, pike, maskinonge, pickerel, perch, rock bass, sunfish, catfish and other species.

To the extent that any of these small fish, adult or young, are acceptable to larger carnivorous fish as food, they are generally made use of in that way, though there are definite lines or zones beyond which bass, pickerel, pike or maskinonge will not advance in their pursuit. These small fishes, however, and more especially the soft-finned true minnows and young suckers, while of no value for any other purpose, are tremendously important as food for game-fishes and, incidentally, as angling bait.

It is important to bring under control the taking of these "minnows", first because of the possible destruction of the young of game-fishes, second because of the possible tearing up of the vegetation from the bottoms of inshore bays, and third because of the reduction in numbers and possible wastage of fishes important even if not absolutely necessary as game-fish food, as well as the possible introduction of undesirable species into new areas.

There is, at the present time, what appears to be a discrepancy between the Dominion and the Ontario regulations respecting the conditions under which bait minnows may be taken.

In the Dominion regulation permission is granted to make use of a dip-net of a maximum diameter of twenty-seven inches for the purpose of taking

minnows. Most minnows being wary, especially in clear water, a dip net of this diameter is practically valueless.

Ontario regulations permit of a dip net being licensed for the capture of coarse fish minnows, the measurement of the net not to exceed six feet by six feet, it being presumed that such a net can be used legally. This type and size of net represents in all probability the most harmless device which could be used, because it would not take excessive numbers of minnows and young game-fish and would not cause damage to the inshore vegetation.

Ontario regulations also permit of a license being issued for the use of a minnow seine not to exceed thirty feet in length or six feet in depth. This type of net is very destructive.

In view of this situation, the Committee recommends, first, that flat dip-nets measuring not more than six feet by six feet should be permitted to be used, free or under nominal license, for the capture of bait minnows; second, that



Semi-natural bass ponds at Riley's Fish Farm,
Barberton, Ohio

minnow seines should either be prohibited or limited, under license, to a length of ten feet and a depth of two feet, except when used by officers of the Department for propagatory or stocking work, or under permit of the Department for scientific or educational purposes.

Sale and transfer. Planting with minnows could in all probability be done advantageously in order to overcome food deficiencies of certain waters. It should only be done under expert supervision after study of the local conditions.

Indiscriminate transfer of minnows is undesirable, first, because persons transferring them for game-fish food purposes may not know the specific differences between them, and therefore will not know the consequences of their introduction; second, because minnows may be taken from one region to another by sportsmen for bait purposes and allowed to escape in waters in which they may be injurious.

The sale of any live minnows other than those taken locally for fishing in the same general area is inadvisable because of the danger of introducing in the young stage, fish like carp which are not wanted.

Because of the conditions outlined, the general sale, except of minnows taken and used locally, should be prohibited. Local capture and sale, which

represents both a source of revenue to children and others, and a convenience to sportsmen, is probably harmless if the minnows are not taken by destructive apparatus. Transfer of minnows for food stocking purposes should be encouraged but only under Government supervision, a general regulation against transfer being first advisable.

6.—CHANGES IN CANAL WATER LEVELS IN RELATION TO GAME-FISH CONSERVATION

Two important canal systems, the Trent and Rideau, include in their course and head water supply some of the outstanding game-fish waters of the Province. The operation of the canals for navigation and power purposes is attended by natural and artificial raising and lowering of levels which in various ways affect the welfare of the fish. There are doubtless conditions and changes favourable to the fish, but comment and complaint are common as to fall lowering, leaving spawn of lake trout exposed and spring lowering leaving the spawn of maskinonge or other fish exposed. Several representations have been made to the Committee, especially with reference to the headwater lakes and the Kawartha Lakes of the Trent system and with reference to Newboro and Charleston lakes in the Rideau system.

It does not seem possible at the present time to obtain much definite information as to presumed injury to the game-fish nor to the alleged lack of attention on the part of Provincial or Dominion authorities to the question.

With reference to the Trent system, the Committee had a special conference at Peterborough with Mr. A. L. Killaly, Superintending Engineer. Mr. Killaly afterwards kindly attended the public meeting at Toronto, where he personally explained the necessity of certain conditions of water-level which had been represented as injurious to game-fish. Mr Killaly readily placed at the disposal of the Committee all the engineering and hydraulic data bearing on the question of the changes in level, and assured the Committee that while the requirements of navigation and power supply have to be maintained, he was ready at any time to consider and investigate cases of presumed injury; further that the Dominion service which he represents is ready to co-operate in preserving the game-fish supply so far as practicable.

As regards the Rideau system, Mr. A. T. Phillips, Superintending Engineer, expressed himself in a similar vein.

It appears to the Committee that the management of these systems, and more especially the Trent system which in its entirety affects a relatively enormous water area, is a highly technical operation, which requires constant observation and recording. For this reason, there are likely to be from time to time changes in level which are not readily intelligible from the lay point of view and which either actually affect fish life or are naturally suspected of doing so. Under these conditions, the expressed intention of the Superintendents of doing what they can for the protection of fish life is relatively more important than the attempt to determine whether one interest or the other is of the greater significance.

The Committee is of the opinion that conditions might be improved in the following ways:—

(1) The Provincial Department should make its own investigation of the effects upon fish life of the lowering and raising of water-levels.

(2) The Provincial Department should keep in touch both with individuals and Associations along the route of these systems, and, on the receipt of complaints, report them to the respective Superintending Engineers.

(3) The Superintending Engineers might be requested to communicate information regarding special work or changes proposed, as opposed to routine canal business, which might affect the welfare of the game-fish in a particular area.

(4) Where the game-fish situation might be permanently or temporarily improved, the Province might in the general interest undertake necessary service or construction, it being presumed that this service or construction is entirely because of the game-fish interest and is not disadvantageous to the canal system.

(5) In consideration of the advantages that have been brought to the respective communities by the creation and expansion of these beautiful water areas of the Trent and Rideau systems, the local residents and anglers could well afford to look with greater leniency upon the disadvantages which result from navigation and power requirements.

(6) The loss of fish, especially of bass in the Rideau and of maskinonge or lake trout in the Trent, if shown, after examination by the Department, to be serious from the point of view of game-fish requirement and the tourist trade, could be to a certain extent counteracted by more intensive propagatory operations with especial reference to the requirements of the two systems.

7.—TIMBER DAMS IN RELATION TO PRESENT AND PAST CONDITIONS OF WATER LEVEL

The utilization of streams for the flotation of logs has resulted in many kinds of constructions of the nature of dams and chutes over falls, narrows and rapids. Since the companies operating did not as a rule have any permanent interest in these structures, they have been left to stand or fall as time and circumstance might decide and are now, generally speaking, in all stages of disrepair. Some of them, not now operated, are holding up levels in upper waters, while others have been reduced to timber debris clogging the stream beds.

Several such instances have been reported to the Committee, and it is evident that in certain cases at least some kind of action should be taken, either to repair the dams or to remove obstructions to stream flow or fish migration. Since it will be true of many places throughout the northern or pre-Cambrian region that increased water area is relatively more valuable than land, more especially if the latter consists of ugly, drowned out or denuded shore line, the plan of action most likely to be advantageous would be to endeavour to retain the higher levels in upper waters, rather than, by destruction of disused dams, to allow the upper waters to come back to their original levels. It is often the case also that the only transportation routes are water routes and the maintenance of higher levels is thus a matter of some importance to settlers and others in moving supplies.

8.—FISHWAYS

There has been already throughout the Province considerable development of power dams, and similar though perhaps less complete or costly mill dams, which development has taken place without reference to the possible requirements of fish migration. There has been, in general, a notable disregard of the Dominion law requiring the construction of fish passes in such a situation. In fact in the construction of power dams, the possible effect upon the game-fish has apparently not been thought important enough to bother about.

As regards the necessity of fishways or their advantages from a conservation standpoint, there is a general sentiment among sportsmen that in all streams or rivers where fish normally run up or down stream, fishways should be provided. There is, in fact, a sort of tradition as to the necessity of fishways, irrespective of their probable local utility, based of course primarily upon the stream ascending habits and requirements of trout and salmon.



A form of artificial construction for trout runs not so effective as cement construction but satisfactory and much less costly. Michigan State Hatchery, Paris, Mich.

So far as can be ascertained, the value of fishways depend upon the extent of instinctive insistence which fishes show in ascending or attempting to ascend streams during their spawning migration. The stream ascending instinct is very marked in salmon and in brook trout, moderately indicated in pickerel and to a certain extent in maskinonge, and is practically non-existent in bass. It is probable, therefore, that in all parts of the Province where bass, pickerel, and maskinonge predominate the construction of fishways would serve no particular use except permitting greater freedom of movement. In trout waters, on the other hand, the absence of effective passes might easily result in a rapid falling off and eventual depletion of headwater areas.

The only cases brought to the notice of the Committee as regards trout are, in the first place the Nipigon River, generally considered to be the best and most famous trout river in the world, the upper and middle portions of which have been greatly modified and, in the opinion of many, ruined by power dam development, and, second, the Mettagami River in Northern Ontario, on which the construction of power dams has seriously interfered with the free migration of trout.

There appears to be no good reason why the Province, which in one way or another would be able to control such a situation, should accept without protest the action of interests concerned in power or similar developments involving the construction of dams, knowing that these interests are not likely to be particularly concerned with the welfare of game-fish, but knowing also that the Government service is being relied upon to see that all public interests



Bass rearing ponds at the Michigan State Hatchery,
Hastings, Mich.

are safeguarded. This being the case, it may be reasonably suggested that there should be some definite policy pursued with reference to the free passage of trout into upper stream waters, that complaints as to the damage done by such hindrances to migration should be thoroughly investigated and if possible corrected, and finally that more attention should be given in future to the practicability of fishways in trout waters under consideration for the construction of power sites.

The Dominion regulation regarding the requirement of fishways should be given advertisement in the publications of the Provincial Department. The same is true of the Dominion regulation prohibiting various kinds of hindrances to fish migration.

9.—POLLUTION

Pollution is also a matter upon which a more vigorous policy is greatly needed. It is specifically prohibited by Dominion Fishery regulation, and by Provincial Health regulation, but is nevertheless so common in occurrence that we may judge the matter, from the point of view of fish conservation and in many ways from the point of view of health and convenience, to have been largely ignored.

Some of the ways in which pollution is indicated in this Province are in the direct discharge into water channels of sewage or industrial waste, the latter from a wide variety of plants and including dissolved chemicals and solid materials. The chief damage being done in Provincial game-fish waters is from paper mill waste, wood, paper and chemical slops, pulpwood bark, sawdust and chips from lumber concerns, and the waste of mines, dye works and gas plants.

In a recent address by Mr. Justice Kelly, dealing incidentally with some phases of this question, reference was made to the problem arising from paper mill waste at Dalhousie and Athol, where scientific investigation resulted in the construction of a pond or settling basin by which the chemical waste from the plant was successfully treated so as to be largely harmless to fish life.

A great deal of investigation has been carried out in various parts of the world regarding the effects of pollution whether from the point of view of human health or of fish life and the means by which the various types of pollution can be remedied. In Ontario, viewing the matter from a game-fish standpoint, thorough investigation of the question would seem to be first advisable. Such investigation should be followed by the adoption of an aggressive policy in the direction of doing away with water pollution and its effects.

In view of the fact that pollution is already prohibited by Dominion Fishery Regulation, which should receive public advertisement, the only other question which arises is as regards the proper application of the regulation and enforcement with such adjustment as may be necessary for the Great Lakes and inland waters.

10.—INJURIOUS BIRDS

It is commonly represented by sportsmen that certain birds are very injurious to fish, especially to shore or shallow water fish, and that some movement in the direction of destroying these birds would be in the general interest. The species of birds most commonly complained about are the American Merganser, Sheldrake or Saw Bill, the Great Blue Heron, and the Common Kingfisher.

The American Merganser has a very wide northern summer distribution. It raises large broods, and, being a fish-eating duck, is destructive of large numbers of small species of fish and the young of larger species. It enjoys considerable freedom from being shot at, both because it has the same close season protection as other ducks, and also because it is generally not wanted as food.

The Great Blue Heron is a large shore wader which hunts persistently in inshore bays, searching for frogs and fish which constitute its natural food. It is also a regular attendant upon trout ponds where it is capable of inflicting great damage.

The Kingfisher is a comparatively small species which feeds consistently upon fish about the shores of lakes and streams and is also common in the vicinity of trout ponds and does a great deal of injury to the younger fish.

Both the American Merganser and the Great Blue Heron are at the present time protected by international treaty through the Migratory Birds Convention Act and Federal Regulations, so that the reduction in numbers of these birds would be difficult to bring about. A partial exception may be made of the Merganser which is subject to open season in the same way as other ducks, but the fact that it is migratory and has a large summer and winter range in Canada and in the United States would make any local or Provincial arrangement for reducing its numbers of little effect, unless by concerted action of

sportsmen throughout the continent. Provision is, however, made in the Migratory Birds Convention Act by which it is possible for officers of the Government to destroy these birds locally if considered injurious.

The Kingfisher is apparently not protected under the Migratory Birds Convention Act but comes under the general protective clause of the Ontario Game and Fisheries Act covering wild native birds.

It may be remarked that although many birds may be shown to be injurious directly or indirectly to fish life, it is necessary to adopt a reasonable attitude towards their preservation or destruction. In the conservation of wild life many interests are concerned, some of which would doubtless attach greater importance to the preservation of bird life than to the preservation of fishes.

11.—REFINEMENTS OF ANGLING

While the nature and process of angling as permitted under the regulations is comparatively well defined, several suggestions have been made as to further restrictions which could, with advantage, be imposed.

At the present time, the practice of trolling, which consists in drawing line and lure from a boat in motion, and which was formerly practised almost entirely from hand propelled boats, is now being carried on to a considerable extent from motor boats. Fishing under these conditions is not tiring and may be maintained continuously over a long period. The generally greater speed of the boat and the inelasticity, both of the boat and line, results in fish being heavily struck and damaged whether subsequently caught and liberated or not. The fact that the boat is able to go almost anywhere, and that within recent years the use of shallow draught outboard motor boats has become very common, means that any area where fish normally congregate can be raked over time and time again. It is not improbable also that the persistent vibrations caused by the exhaust and operation of the engine, especially over shoal areas, has some effect in driving fish from their normal feeding places.

For these reasons, there is now in the Province considerable protest against the use of such boats and a corresponding desire for a prohibitory regulation which will prevent angling from all moving vessels which are not hand propelled. Such a regulation would, in all probability, be in the best interest of game-fishing.

The Committee accordingly recommend that angling or trolling from boats of any type while under sail or mechanical power should be prohibited.

Again, there has been, within recent years, a very great increase in the number and variety of the so-called "plug" types of lures, distinguished both by their weight and resistance to the strike of the fish and occasionally by the formidable character of their hooks. It is probable that the deadliness of these lures is not as great as is suggested by their forms, colours and advertised effectiveness, all of these being in some respects an appeal to the sportsman's imagination. At the same time some vigilance ought to be exercised to see that they conform to the regulations, and the size of the hooks, either as singles or triplet gangs, might with advantage be specified.

There is no doubt that the more general use of the plug and similar types of lure is being viewed with alarm by a great many sportsmen, some of whom think that such artificial baits should be prohibited; others suggest that triplet hooks should be banned and single hooks only used. It has also been suggested that of the hooks now commonly affixed, only the fore or the aft members should be allowed. This would, however, make the lure to a certain extent ineffective

for fishing in general bass, pickerel, pike and maskinonge waters, since some fish take the lure only from a front or lateral position, thus engaging one of the front hooks or gangs while others strike from a follow up position, engaging only the rear ones.

Prohibition of the use of plug baits would undoubtedly result in a great deal of dissatisfaction, but it is not improbable that raising the question will have the effect of bringing about more consideration of the issue as to whether, in the general interest of conservation, this type of lure should be discarded.

Deep water trolling with copper lines for speckled trout in trout lakes has been brought to the notice of the Committee as a practice likely to result in rapid depletion. It is pointed out that in the early part of the season the trout may be fished for in shallow water and that this amount or extent of fishing is all that a lake should be expected to sustain. Under present conditions, however, when in the later part of the season the fish retire to deep water, the use of the copper line again brings them within reach of the fishermen. The result is that the fish are taken during a very long period of the year. The Committee is unaware of the general occurrence of this condition, which was reported by the Association of Sault Ste. Marie, but it appears to be one that should be controlled either by prohibiting the use of deep trolls in waters inhabited by trout other than lake trout, or by cutting off the summer portion of the season in which fishing is carried on in this manner in such lakes.

The question of what kind of tackle ought to be permitted for angling will no doubt always be a matter of discussion. Probably a considerable number of sportsmen fishing in the Province would prefer the use exclusively of barbless hooks, but the prohibition of barbed hooks would nevertheless result in general dissatisfaction. In this case, as in many others of a similar nature, opinion as to the general worthiness of a regulation will depend very much upon the ideals of the individual sportsman and as to whether he gets more enjoyment out of catching fish or testing his own skill by self-imposed rules of the game.

12.—PUBLIC UNDERSTANDING OF THE GAME-FISH REGULATIONS

One of the essentials of good law enforcement for purposes of protection of the game-fish supply is that the regulations should be so defined and publicly distributed in printed form that in the first place they convey exactly what is intended, and, second, that they should be stated in simple language so that the average citizen or non-resident tourist can easily understand them.

There have been so many comments on the game-fish regulations applicable to Ontario and on the general question of how tourists and others view the situation that the Committee has considered it advisable to ascertain if possible and point out where any obscurity as regards the regulations lies. This is not a very simple matter for the reason that regulations have a certain original foundation, have had to be altered to fit one contingency or another, and in the long run are likely to be more than ordinarily abstruse.

The statement of all the regulations applicable to game-fish in Ontario is difficult because of the differences between (1) Dominion and Provincial authority, (2) requirements as regards Great Lake and inland waters, (3) game and game-fish interests, and (4) game-fish and commercial fish interests.

Some of the doubtful or confusing elements may be outlined as follows: The regulations applicable to Ontario are partly of Dominion and partly of Provincial origin. The primary fisheries authority was by the provisions of the British North America Act vested in the Dominion, and certain functions

were afterwards taken over by the Province by decision of the Privy Council. In the natural enlargement of the duties and obligations of the Province it became necessary for the latter to assume protective and other services and to accept the responsibility of the enforcement of regulations of whatever origin.

While it might be said that the differences between Dominion and Provincial regulations is of no consequence to the non-resident tourist, in some respects a debatable point, there is no doubt that a clear understanding of the situation would be useful to our citizens, and in particular to sportsmen who are thinking about the propriety of the regulations in relation to protection against over-fishing, depletion and similar matters.

The Blue Book of the Department, which, apart from certain tourist and poster literature, is the source usually relied upon for information, bears the title "Ontario Game and Fisheries Laws". This title rather obscures the fact that two different sets of regulations are contained, Dominion and Provincial, and that the booklet, while actually containing a statement of most, but not all, of the regulations applicable to game-fish and fisheries of Ontario, is principally a statement of the Provincial Game and Fisheries Act with amendments. A prefatory or explanatory statement setting forth the differences in the regulations and more especially mentioning the exclusive duties of the Province in respect of enforcement, or perhaps, as a matter of information describing other services also rendered would in all probability be advantageous.

Again, the Provincial Act combines regulations applicable both to game (birds and mammals) and, with some exceptions, fish (game-fish and commercial). So far as the respective interests of game and game-fish are concerned, there is little in common. Game-fishermen operate during the summer and have a local setting very different from that characterizing the hunting season. If the Provincial Act were stated in such a way as to divide the regulations the provisions applicable to both would be more easily intelligible.

While in many ways game and commercial fishes represent two very different interests, it is a matter of ordinary experience, abundantly illustrated in the course of this enquiry, that they are very much in contact. It is practically necessary for purposes of adjustment that each interest should understand the needs and expected privileges of the other. It is noticeable that the regulations referring to commercial fishing are largely omitted from the Blue Book. Some of the discussions which have taken place show that sportsmen do not know the commercial fishing regulations and therefore are neither in the position of being able to appreciate the needs of the industry, but what is more significant from the point of view of the present enquiry, they are not in a position to report what they may consider to be commercial invasions, illegal or otherwise, of game-fish areas or conditions.

Furthermore, so much has been said in the course of this enquiry concerning pollution of waters and its effect upon game-fish supply, that it would be well to consider whether it would not be desirable to include in the statement of the regulations the particular clause concerning pollution which is a prominent feature of the Dominion Fisheries Act.

Consideration might also be given to the point as to whether any of the regulations individually might be more clearly worded, as, for example, the Provincial regulation (Section 65) governing seizure. The possessions and articles seizable under this regulation are rather more inclusive than probably intended, since it is not specifically stated to what extent they must have been

employed directly or indirectly in committing the offence. At any rate, several comments were made regarding this particular regulation. It would appear that public respect for such an obviously important provision is dependent upon the assurance that the punishment will fit the crime, and in this particular instance practically no discretion is or apparently can be allowed to the field officer effecting the seizure.

13.—PUBLIC EDUCATION

Reference has already been made in this report to the necessity of improving public opinion upon conservational matters in general, and game-fish protection in particular. The Ontario Federation of Anglers has endeavoured to make clear to the Committee that, in so far as development of public opinion is concerned, the sportsmen of the Province have already publicly demonstrated the case, and therefore it is now for the Province to take action. This view appears to the Committee to be substantially correct. It is unlikely that anything like an overwhelming sentiment in favor of conservation will be developed in Ontario for a long time to come, notwithstanding that every thoughtful element in the Province would understand its justice and value. It is a case where leadership must be shown, and where indifference and inertia might easily result in entire depletion of our game-fish and other resources before the loss would be generally realized.

It is necessary, therefore, to put into operation any educational influence that can be brought to bear on the situation so that as time goes on our people will think more about conservation and its productive values and less about the personal freedom of destroying plant and animal life. Such a change of sentiment will come about only by continuous public advertisement of the conservational issue. The problem, like other great public issues, will ultimately be solved through the public schools.

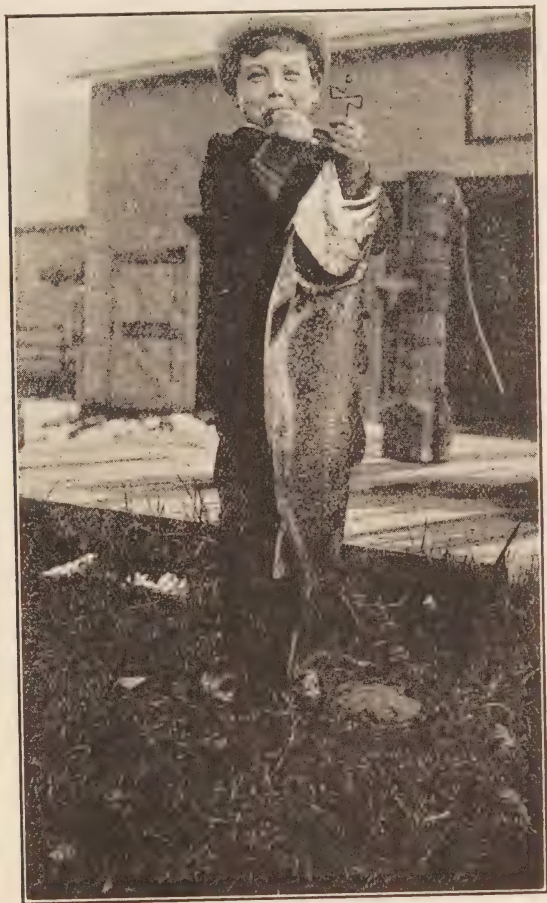
Both the general public and especially that part of it interested in one way or another in outdoor sports, travel or fishing, could easily be reached through the medium of attractive, well illustrated literature, and there are many sources through which the supply of the necessary information and illustrative material could be arranged. The production and issue of this literature should be organized and paid for by the Government, preferably under some sort of publicity arrangement. The type of publication most likely to be acceptable, as regards game-fishes, would be one giving authoritative information concerning natural history of the chief species, travel routes or fishing waters, licenses required, and the needs of conservation coupled with a friendly but direct statement or warning that we want and expect our laws to be observed.

Literature of this type, preferably in some variety, should be available in all hotels, tourist agencies, railway and steamboat offices.

Public signs and posters, more especially those made to withstand weather, would, especially in all remote situations, contribute greatly to public education. Like the fire prevention posters which nowadays everyone expects to see in the north country, game-fish posters would command public attention in places where most necessary and would undoubtedly serve a useful purpose. Pennsylvania, for example, has a game-fish slogan made up in various forms, one of which is a black and yellow metal plate bearing the figure of a fish and accompanied by the laconic observation, "Want good fishing? Obey the law." Such posters undoubtedly have a psychological effect, not only inviting respect and

consideration for the regulations, but also providing a general air of confidence in regions where game-fishing is a common recreation.

Essay contests in schools have been shown by the Toronto Anglers' Association to be a valuable method of handling the school situation. The proper organization of the conservational work cannot in respect of the schools, however, take place except through a lead given by the Provincial Department of Education. In view of the fact that Government service is concerned in so many ways with the natural resources and conservation, it would be worth while considering whether in the general interest some detailed reference to



A 25-pound lake trout taken near Westport,
Ontario, August, 1928.

conservation should form part of the school curriculum. There is already some reference to nature study, and it may be that a certain purpose and direction could be given towards teaching conservation, or that work along the latter line could be formally arranged. In either case it would be necessary to prepare texts and suggestions by which stated instruction could be carried out. The offering of prizes, or setting up competitions between schools could be managed through the co-operation of local Associations.

GAME-FISH POLICY

1.—DIFFERENTIAL REGULATION

Reference to existing regulations governing the taking of game-fish indicates that the principle followed for the most part assumes that these regulations should apply uniformly to all parts of the Province. Such exceptions as are made do not appear to be related to conditions fundamentally important, namely, of physical or environmental nature such as affect the spawning or growth of the fishes themselves.

As pointed out in a previous section, the Province is remarkable for its great diversity of geographical, geological and climatic conditions. The nature of these conditions has not been scientifically determined to the extent that the information would be conclusive for estimating closed seasons, minimum sizes and similar arrangements for protecting the natural propagation and growth of the various species concerned. Sufficient, however, is known to demonstrate that the principle of having uniform regulations applicable to the Province as a whole is, from this point of view, fundamentally unsound. Practical demonstration of the effect of endeavouring to keep regulations uniform, irrespective of local conditions is afforded by the recent discussion on the part of the sportsmen from different sections of the Province as to the principle underlying the extension of the closed season for the bass and maskinonge to July 1.

The Committee is of opinion that in making permanent regulations, or in recommending changes to the Dominion Government according to the constituted authority, full consideration should be given to the desirability of making effective zoning arrangements to meet the requirements of different sections of the Province.

These requirements should be estimated as primarily for the purpose of covering close season and growth, to be determined accurately by study of the situation, secondarily, for the purpose of effecting greater restriction where there is greater depletion, and finally to meet reasonable local requests as to greater protection or other desirable changes.

It is probable that in the future, as knowledge of the natural requirements of the different parts of the Province expands, the necessity of establishing zoning regulations will become more and more evident.

2.—GAME AND SEMI-GAME FISHES

Game-fish are specified according to the Dominion regulations to include large and small-mouthed black bass, maskinonge, salmon, speckled trout, brown trout and rainbow trout. What constitutes a game-fish in popular definition or estimation, however, depends to a considerable extent on the habit or ability of a fish to accept an angler's lure and to fight not too clumsily for freedom. It also depends upon what choice the water affords as to variety of species and their respective sport qualities or palatability. Thus at any one place or time, either with good or poor fishing, the acceptability of a species as a game-fish will depend upon several factors.

In Ontario at the present time, large or small-mouthed bass, speckled or other trout, or maskinonge may be individually favoured. Under conditions of reduced plenitude of any one of these species, another species, when otherwise available in a particular region within range or in the same water, may become a substitute and therefore the predominant game-fish. The same is true of fishes not wholly ranked as game-fishes in popular estimation, more especially

pike, pickerel and lake trout, any one of which may be occasionally preferred even in comparison with those above mentioned, but is more likely to be accepted as a substitute than as a game-fish of principal rank.

Pike, pickerel and lake trout are common inhabitants of waters in which commercial fishing is not permitted. They have therefore a position which naturally associates them with game-fish interests, and they are also very generally appreciated and made use of in this way.

On the other hand the increase in demand upon the recognized game-fishes indicates clearly the advisability of having both as many species as possible turned to game-fish account and also the advisability of increasing the areas reserved for game-fishing purposes.

This involves some change of policy in the direction of game-fish or semi-game fish recognition of these species, which the Committee commends for consideration, and also a revision of the permits and privileges now existing as between game-fish and commercial fish utilization.

This matter will be discussed in a later section (cf. p. 104) dealing with fishing licenses in inland and Great Lake waters. The present statement aims simply to indicate that under the conditions now existing there is needed in Ontario a better understanding and definition of what constitute game-fishes, and recognition of the fact that increase in the game-fish interest puts a new complexion on the situation as regards game and commercial fishing.

3.—FURTHER RESERVATION OF GAME-FISH WATERS

One of the outstanding features of the present situation in Ontario is the new lead which is being given to fishery management through the increase in importance and monetary value of the game-fish interest. The outlook is very different from that previously in the public mind because there has always been a tendency to emphasize the commercial fisheries on the basis of their obvious value as a component of industrial production.

While it may be claimed that the demands now made by the sport and tourist element might have been anticipated, in view of experience elsewhere, the opinion expressed by many sportsmen that we have neglected game-fish interests should be considered rather in the light that we have recently become impressed by the rapid increase of tourist movement, its value, and perhaps more especially by the possibility that all tourist waters, old and new, are now easily susceptible to depletion.

This newer alignment of interest seriously calls for some re-consideration of the respective privileges of game and commercial fishermen. It is a matter very much under discussion by sportsmen and naturally one also in which commercial fishing interest and the progress of the industry are vitally concerned.

In the course of the present investigation, discussion has centred around Lake Erie, the northern portion of the Lake of the Woods, Lake Nipissing, the main, eastern and northern shore of Georgian Bay, and certain lakes of Prince Edward County. In general, it has raised the question as to how the respective interests may be served or delimited.

There has been in Ontario a sort of general policy or tradition that the waters of the Great Lakes are predominantly commercial fish waters, and that the inland lakes and streams are game-fish waters. This differentiation of game-fishing and commercial fishing waters has had some value, but has necessarily been impossible of complete realization. Game fishermen have for

example always had shore angling interests on the Great Lakes, while some of the inland waters, chiefly the larger, such as Lake Nipissing, Nipigon and Simcoe, have not been reserved for game-fish waters.

The larger areas which may be described as in a very uncertain position as regards the commercial or game-fish interest, include parts of Lake Erie, the Lake of the Woods, Nipigon, Nipissing, Simcoe, the main shore waters of Georgian bay and the North channel, as well as smaller inland lakes in which commercial fishing takes place.

As regards the species of fish which may be said to relate predominately to one interest or the other, it may be observed that many years ago, no particular distinction was drawn, fish of all kinds being freely taken and sold. Later, the different natural characteristics of the species, and the different requirements of fishing, led to the distinction by which the capture of maskinonge, speckled trout or bass became the exclusive privilege of sportsmen, while on the other hand the capture of whitefish and herring became the privilege, though not in an exclusive sense, of commercial fishermen. Such species as lake trout, pickerel and pike were left in a middle position, and in general have been regarded as desirable from both game and commercial points of view.

Commercial and sport fishermen have as a rule little in common. Except under unusual conditions they operate in different fields under different working conditions, and for very different purposes. Where their interests overlap, as they do with respect to certain species of fish as above described, and also wherever inshore commercial fishing takes place in regions occupied by sportsmen or summer residents, it is not to be expected that the requirements of both can be met without some sacrifice or injury to one. The only likely exception, which is in fact beginning to be illustrated, is the turning of the commercial element to the service of the tourist trade. Fishermen by virtue of their training, experience and equipment are in a very advantageous position to serve the tourist requirement, and probably would already have gone farther in this direction in Ontario had it not been for the isolation that has come about by most of the commercial trade being of an export nature.

As regards the respective claims which sportsmen or commercial fishermen may have for consideration, it will be noted first that sportsmen and tourists, though enjoying a certain exclusiveness of privilege in respect of waters removed from commercial fishing, are not considered as having any special right to reservation of their fishing waters, notwithstanding the often substantial establishments maintained, land taxes paid and valuable contributions made to communities in which tourist business is more or less relied upon as a source of livelihood.

On the other hand, commercial fishermen are recognized as having investment rights, represented by their material assets of boats, gear, ice-houses, wharves and even of established occupation of fishing grounds, such rights being of the nature of moral rights in respect to waters presumed to be entirely public, but nevertheless commonly recognized, and strengthened by general appreciation of the hardship and peril incident to fishing operations in the open water.

As to the respective values to the Province at large, there is an enormous disproportion between the revenue derived from commercial and tourist sources. In 1927, the value of the commercial fisheries is reported at somewhat less than three and one-quarter million dollars. It is impossible to state how much of this revenue would be sacrificed if every area reasonably needed for game-fish or tourist purposes were to be closed to commercial fishing. The total area, however

would form a very small part in proportion to that which commercial fishermen normally have in the Great Lakes and which could never be of game-fish importance.

By comparison, the game-fish interest and value is represented only approximately as a component of the tourist trade estimated for the same year at some eighty-three million dollars. Although many reservations may be made as to what value should be placed on the game-fish attraction, it is obvious that the disproportion between the commercial and game-fish revenue would still be so great as not to modify the general conclusion.

What is needed therefore is a new alignment of the game-fish requirement, which may be stated to mean that wherever there are clean attractive shore lines, with good game-fishing and with residential sites, camps or hotels becoming occupied by large numbers of summer visitors, the immediate water area should be reserved for game-fishing. This game-fishing reservation should, for reasons of protecting the supply, not only include species such as maskinonge or bass, which are game-fishes in a strict sense, but also semi-game or substitutive fishes such as lake trout, pickerel or pike.

Because of the prevalent idea that the inland lakes are predominantly game-fish waters, the general view of sportsmen is that all commercial fishing should be eliminated. A more fundamental issue, however, seems to be that, whether in inland lakes or in the Great Lakes, commercial fishing in deep or "fathom" water is not likely (with some exceptions) to harm the game-fish supply, while on the other hand any kind of operation of gill-net, pound-net, hoop-net, or seine in inshore water most assuredly will. It is this inshore water which constitutes the critical issue in so far as the game-fish interest is concerned.

On this basis and for the various reasons stated above the outline of a constructive policy would seem to be as follows:—

Reduce, and when commercial fishing becomes undesirable because of increase in game-fish interest, refuse commercial licenses in inland waters, especially ensuring protection of inshore waters. Such a plan would have to be developed progressively during the next few years. It would undoubtedly affect seriously certain fishermen who have inshore netting privileges of one kind and another. It would, on the other hand, serve the useful purpose of doing away with the free-for-all expectation that licenses for inland waters and especially small lakes can be obtained from the Department. In any case, if the inshore fishing is to be cut down, it would be better to start now than passively maintain a situation which is becoming more and more unpopular, and which would, in the natural course of events, lead to rapid depletion of the game-fish supply.

It will be seen that the question of inshore fishing involves both general commercial fishing as above designated and removal of undesired species. The latter of which should not in any case be open to commercial license.

Local situations calling for restriction or withdrawal of commercial fishing privileges should be handled as far as possible by local conference so that compensatory arrangements for loss of trade or custom may be to some extent provided for.

Special consideration should be given to the claims of local Associations on behalf of the non-resident tourist population.

4.—DIVERSITY OF AUTHORITY IN RELATION TO DEPLETION

In the course of this investigation, it has frequently been brought home to the Committee that there is a potential and probably effective factor of loss to conservational effort in the division of authority as between the Province and the Dominion, and in the case of the Great Lakes which are international waters, in the diversity of authority as represented by either or both of these and by the individual States bordering upon the Great Lakes and the Federal Government of the United States.

Whether substantially founded or not, there seems to be a reasonable basis for the conclusion that no consistent effort has been made to ensure uniform protective regulations.

As between the Province and the Dominion, though they alone are not exclusively concerned, there is for example the fact that certain species, lake trout, pickerel, and whitefish are protected by close season regulations in inland waters but not in the Great Lakes. Yet Ontario as one of the Canadian provinces has practically undivided interest in the Great Lakes fisheries, supplies all the protective service and operates all the hatcheries on the Canadian side. Whether necessary or otherwise, it is made to appear that the Province is in the position of trying to maintain by artificial propagation a supply which in part at least should normally be produced by natural propagation and favoured by wise regulation of close season.

The larger issue as between the Province and the tier of States bordering on the Great Lakes is naturally a more complicated one, but in which uniformity of legislation is still the principal consideration. There is in respect of this situation a common impression, probably well founded, that the interests of conservation are in general suffering from the lack of adjustment of various inequalities in the way of fishing privileges granted to citizens of one State or another or to those of the Province.

In many ways the history of fisheries legislation on both sides of the international boundary in respect of Great Lake waters is of outstanding interest. The tracing of the influences which in one way or another have been brought to bear on the fisheries during the last thirty years does not impress one with the conviction that a great deal of progress has been made along conservational lines, unless perhaps that there has been at least some effort in the direction of maintaining protective service, restriction, and fish culture which might otherwise have been allowed to lapse. While there is plenty of suggestion available in older reports as to the desirability of uniform action, there is perhaps at the present time more actual disposition than ever before to adjust by conference specific differences of legislation or practice, to recognize the necessity of combined action and to seek means of solution.

PROTECTIVE SERVICE ORGANIZATION AND ACCESSORIES

There is no part of the game-fish problem in Ontario which is so closely connected with game-fish depletion and at the same time so difficult of solution as that of providing effective service for game-fish protection. In view of the numerous comments that have been brought to the Committee, it would be wrong to overlook or minimize the fact that among the sportsmen of the Province there is a great deal of doubt as to the ability of the service to cope with the situation. Sportsmen generally realize, however, the great objective difficulties which have to be overcome in planning and carrying out protective service adequate to the varied conditions which obtain in various parts of the Province.

It will be borne in mind that both the administrative officers and the field men who are concerned with protective service have a great many duties besides policing for game-fish protection, so that in discussing the latter issue it is important to remember that only one phase of their work is being reviewed.

The protective service may be briefly described as consisting of six principal district officers or wardens, some seventy overseers and special patrol field men and ten patrol boats operating in various waters of the Province. To this permanent force there are added special and seasonal officers, and the accessory services implied both in the appointment of deputies and in the duties specified for guides.

In view of the discussion which is to follow, it may be observed here that the basis upon which the protective service may be best considered from the point of view of possible improvement would appear to be:

(a) Recognition of the fact that while there are various local needs, the chief obligation of the Provincial Government is to provide a fair distribution of service, and therefore that there can be no protection afforded to one part of the Province more so than to another having similar requirements. This very obvious principle is so generally overlooked as a result of local enthusiasm that it would seem to be worth while enquiring to what extent the work of the Government is impeded by demands for local additions to the protective service rather than assisted by general co-operation in building up a strong protective system for the Province as a whole.

(b) While there has been little public comment on the major subdivision of the external or field service, the number and distribution of district wardens in relation to the work of the local overseers and possibly to the public appears to present some features worthy of consideration.

(c) Comments are fairly frequent as to the qualifications necessary for field service such as overseers are expected to render, and as to occasional existence of incompetence or lack of qualification in the force. Representations on the subject are usually very indefinite, but at least two lines of action are indicated, namely, that such elements of unfitness for the work should be promptly eliminated, and that some more definite means should be applied of ascertaining by external enquiry to what extent the field officer is or is likely to become efficient. If the number of men employed is relatively so small as to raise widespread doubt as to their being able to cover their respective territories effectively, there would appear to be just so much more reason for seeing that these men should be of the active, capable and interested type.

(d) The fact that the Provincial Government through its various departments has to supply a great deal of service in outlying parts of the Province and for that purpose to employ a large body of men, suggests the possibility that a greater degree of co-operation might profitably be encouraged without interfering with the proper duties of the respective services. Fish and game officers, especially would profit by such co-operation if only in the way of receiving casual information concerning actual or suspected law infractions.

(e) The existence of various kinds of public bodies, such as sportsmen's, tourist, guide or trade Associations, having a particular interest in game-fish matters, suggests the further possibility of making greater use of their membership for protective and conservational purposes.

(f) Judging from sentiment expressed throughout the Province, especially as regards the rapid increase in tourist revenue and the demands made upon the Government service for game and game-fish protection, it would appear that the

time is ripe for a far-reaching reconsideration of the present and probable future requirements with a view to substantial improvement in organization and addition to the force of field officers.

1.—GENERAL OUTLOOK OF THE SERVICE

The effectiveness of any service which is designed to prevent petty law breaking is bound to depend to a very large extent upon the principles instilled into the field officers, and upon their training or ability to handle the situations presented. As indicated in a previous section concerning the public relation of the administrative service, it is entirely probable that with requirements so complex as we have in this Province, a great deal of advantage is to be expected of friendly co-operation between the service and the public at large. It is not to be supposed that the worst types of offenders can be reached by a process of moral persuasion, but unless there is a great deal of willing public assistance, the prevention of law breaking, especially in the enormous areas of the northern part of the Province, by a handful of field officers, is utterly impossible. It is easy to see that if district wardens, overseers and boat patrols had more informative open relations to the resident community and tourist elements the situation might be greatly improved.

During a recent visit to the northwestern section of the Province, the Committee was greatly impressed with the spirit of co-operation shown by various elements, game-fishing, commercial fishing and industrial interests towards the Departmental service. But, on the other hand, there is a rather widespread sentiment in the Province that the service operates too much in the manner of a sort of detective or police agency and is not usually heard of unless some offender is caught. Such an impression may be wrong in most respects but is perhaps naturally engendered because the Department's services are not, generally speaking, brought to the notice of the people in more constructive ways.

2.—DISTRICT WARDENS

The only representations which have come to the Committee respecting the principal field officers in relation to the protective service refer either to the general outlook as outlined above or specifically to the need of additional representation in the northern parts of the Province.

In the opinion of the Committee, it would be better if the various district wardens had more freedom of control in their respective areas, more especially in the leadership of their men and in encouraging organization and harmonious operation of local Associations. Any fear that may be entertained that by so doing the work or authority of the Department may be compromised or weakened should be thrown aside in favour of a clear cut statement of the regulations and of the Department's policy which any officer may be free to publicly state or, if necessary, advertise.

Representation northwards now consists of three officers located respectively at North Bay, Fort William and Sioux Lookout. The area served by these officers is a very large one, while the responsibilities are rapidly increasing through the movement of tourists along the northern shores of Lake Superior and Huron, and by rail and motor road into the back country, as well as by industrial developments taking place throughout the region. It has been suggested, and the Committee is in accord with the principle, that the allocation should be made according to the Provincial districts, Kenora, Rainy River,

Thunder Bay, Algoma, Sudbury and Nipissing, with proper reference, however, to economy of service, and the more immediate needs, more especially perhaps in relation to tourist movement, which exist in these districts.

3.—OVERSEERS

The present staff of overseers is commonly reported to be far too small to really accomplish what is needed, either in checking up on summer tourists or in protecting the fish during the off seasons. Throughout the Province, and even in the more densely populated southern portion, there is general insistence upon the appointment of more overseers. The situation is obviously one which has to be seriously considered, but the Committee is unable to suggest either the number or the allocation of the additional men, or further to find any great amount of assurance that the increased number will result in more than a very small improvement in the situation. A moderate increase in the number of overseers distributed throughout the Province would in all probability not result in any noticeable change. The expense of doubling or tripling the number would require at least \$75,000 or \$150,000 additional appropriation, but might nevertheless be advisable in view of present and expected requirements. The greatest need appears to be in regions where, owing to inaccessibility or peculiar conformation of the shore line, detection of offenders is unusually difficult or, on the other hand, in waters occupied by large numbers of tourists.

In the opinion of many sportsmen and others who are informed as to conditions in important tourist centres the Department now loses in uncollected and misused licenses more than sufficient to pay the difference implied in the cost of additional overseers, provided means of effectively checking up on licenses were in operation. It is pointed out also that the Province has instituted within recent years a provincial land tax for unorganized districts, and that summer tourists so taxed should have some more definite protective service. No accurate computation can, however, be made on either of these bases.

In addition to the small number of overseers, there is general comment on the probability that the service could with advantage be further organized. Certain concrete suggestions have been made: for example, that the overseers should be supplied with better equipment for their work, that they should be in uniform, that the system should be organized to maintain a field force of young active men, that there are avoidable difficulties in effecting prosecutions, and that there is a lack of co-ordination of overseer work and public assistance.

Regarding the question of equipment, there is doubtless a very great difference in respect of requirements as between the fall, winter and spring months, on the one hand, and the summer months, on the other. In the former case, the poacher has the advantage of distance, to a certain extent also of telephone service by which the whereabouts of the overseer may be reported to him, and in many places he profits by the fact that there are few people moving and he is therefore free from observation. During the period of the spring break up and directly afterwards, throughout a large section of the Province, his position or place of operation is likely to be inaccessible.

During the summer months, it is probable that on the average the chief obligations of the service are in the direction of supervising summer tourist operations on the game-fish side, incidentally perhaps checking up on illegal operations otherwise connected directly or indirectly with summer trade. In this position, the overseer, unless he exercises a great deal of ingenuity, is likely to be outclassed simply because many of the people he has to watch are provided

with speedy and sometimes elaborately expensive motor boat equipment with which he can scarcely compete. In fact, anyone possessing an inexpensive outboard motor equipment can, under the conditions existing in most tourist waters, evade the overseer.

It is obviously impossible for the overseers to supply their own equipment except in an incidental way. Some plan should therefore be devised by which the men should obtain field equipment adequate to their particular lines or needs of operation.

The fact that our overseers are not in uniform is obviously disadvantageous, first, because the uniform commands respect, and second because it is a warning of organized service which many tourists, not acquainted with our institutions, may readily think we lack. Further, while in some cases the overseer would be more successful in plain clothes, there are also situations in the apprehension of offenders in which the lack of uniform is dangerous for the reason that law breakers generally assume that it is safer to maltreat a citizen than an officer.

Several comments have been received by the Committee as to the personal ability or activity of overseers, that some are too old to carry on their duties, some inactive or indifferent to the duties of the service, and some in service for political reasons rather than because of qualification for the work. There is, on the other hand, general appreciation of the work being done by the overseers under difficult conditions and of the services rendered both to the Department and to conservation by some of the older men.

All this may be taken as an indication, not that we have a system deserving of criticism, but that we should look forward constructively to the growth and development of an overseer or guardian organization that would meet the ever increasing obligations of field service and also operate in the best interests of the force.

There appear to be two possible ways of effecting this development. One of them concerns the fish and game overseers as a unit. The other concerns the entire provincial field service. The Committee recommends both of these for further consideration.

The principles underlying the organization of the overseer service as a departmental unit ought in general to follow the same lines as have been found necessary in police, military, and transportation organizations, the chief requirements of which have to do with all-year-round outside or field service, qualification, training and grade promotion. The field service should be composed of young active men with proper physique and qualifications who can be specially trained for the work. They should be uniformed and operate under a special discipline adjusted to the needs of the service. The problem of what to do with the older men who have given loyal service to the Department, and of encouraging younger men who render outstanding service in the field must be met by some system of promotion similar to that employed in analogous organizations. Such changes in the direction of more exacting requirements will demand revision upwards both of the ordinary scales of pay and of the financial arrangements and allowances for promotion in the service.

As regards the second possibility, it may be pointed out as worthy of consideration that the Province has in its various departmental and service organizations a very large obligation to meet in the matter of external or field service of various kinds and concerning an enormously large area. The natural tendency is for each type of field officer, assigned as he is to particular duties under departmental instructions, to become a sort of specialist who perhaps does not feel it to be his particular concern if law breaking goes on under his observation so long

as it is not in his field. While it would not be practicable in Ontario to overlap services in the same way as apparently takes place in some of the States, there might at least be effective co-operation to the extent that field officers, such as game and fish overseers, fire rangers and Provincial police, should, without departure from their respective duties, report wherever possible infractions of the laws.

Another element which may possibly enter into the situation is the source of supply and training of field officers of different kinds. If the Province contents itself with casual appointments, no particular organization, discipline, or technical training of the men is practicable. On the other hand, the sources of supply of men, fundamental training and ordinary discipline being more or less common to all, the organization of a more comprehensive training corps might be of distinct value to several ramifications of the Government service.

4.—PROSECUTIONS AND PENALTIES

As described more fully elsewhere in this report, the regulations relating to the fisheries in general seem to be in need of clarification. To make these regulations say specifically what is intended and in simple language is a matter which should be left to qualified legal experts. There are, however, certain phases of the method of handling infractions of the laws relating to game-fish, and also some uncertainties in interpretation, which have been brought to the notice of the Committee and are probably of some importance to effective work.

The first of these has to do with the authority of overseers or other field officers in effecting or recommending prosecution for pollution of inland waters. A similar situation exists with reference to the pollution of game-fish areas in the Great Lakes, and this situation is, if anything, more difficult for provincial officers because of the Dominion interest in the control of these waters. Pollution from the fishery standpoint is definitely covered by Dominion regulation, but there seems to be no certainty as to how the provision regarding prosecution should be carried out. There is especially no recognition of the point in the regulations as transcribed and issued in book form by the Province. Little co-operation can therefore be expected of the public; and although there is considerable complaint, there is little likelihood of building up public opinion until a definite method of handling this situation is devised.

A second difficulty has to do with the kind of evidence upon which the law relies and which field officers have therefore to observe. Generally speaking, apparatus or fishing gear set illegally must be seized if found, but prosecution follows only if the individual concerned is caught red-handed, or in some cases perhaps if the catch is found illegally in his possession, which, in the case of fish, may not be easy. The evidence of witnesses, or information received concerning infraction is likely to be of no application except as a guide to the authorities as to whom to watch.

The detection and prosecution of offences against the game and fish regulations is, under ordinary circumstances, about the most difficult kind of work that falls to the lot of policing authorities. The offender has all the advantage of seasonal and geographical isolation to carry on his operations. He now has good roads and telephones to help himself and his fellows. The overseer, on the other hand, is alone, most often in Ontario in the wilderness, is usually dependent purely on his own wits, and yet is practically obliged to catch his man at the moment when engaged in the illegal operation.

It is clear that any expansion of the scope of evidence, even if circumstantial, that would be legally acceptable, would be advantageous, as would also be the provision of some legalized method of controlling individuals whose operations have been several times complained about. As the situation is now, there is a general sentiment throughout the Province that although the poacher may be locally well known, his operations are comparatively safe from detection.

Again, there is a fairly widespread conviction that in the prosecution of offences under the game laws, offenders are treated too leniently. If true, this is, in all probability, a matter of public opinion not appreciating fully the relative seriousness of game law infractions. It is possible also that the ordinary penalties, as opposed to seizures, are not sufficiently severe. There is some sentiment to the effect that minimum penalties should be considerably increased, though persons making this suggestion sometimes fail to realize that high minimum penalties may work undeserved hardship in certain cases.

The attention of the Committee has also been called to the fact that the regulation referring to confiscation or seizure is so obligatory upon overseers and so comprehensive that a great deal of its value is lost through the manifest difficulty of applying it. While overseers are bound by duty to carry out the provisions of the Act, some hesitation may be expected in respect of a charge making it obligatory to seize all that a man owns that could be used in breaking the law, whether or not in the particular case actually and immediately used for the purpose.

Finally, it may be pointed out that, whether for causes incident to the construction or administration of the regulations, there seems to be throughout the Province a fundamentally wrong relation between the field officer and the public. As mentioned elsewhere, this relation ought to be friendly rather than purely detective, in which case it would naturally be expected that the overseer should have some discretionary powers by which local sentiment could be improved and the outlaw element more definitely marked for later detection and prosecution.

5.—GUIDES

The terms and conditions under which individuals obtain employment as guides to sportsmen or fishing parties and their relations to the employers, to the Department, and to conservation work, have been adversely commented upon at various times during this investigation. It is urged that no great benefit results from the plan of issuing guides' licenses, except that the Department obtains a fee and therefore an additional source of revenue. It is represented that while a sportsman employing a guide licensed by the Government expects to have a man whose fitness for the work has received official approval, the fact of the matter is that any person, not previously convicted of a breach of the regulations, can obtain a license whether he has any qualifications or not. This rather extreme view of the case is probably to be taken rather as a general arraignment of the method of handling the situation, and does not reflect upon the excellent intentions, abilities and services of perhaps the majority of guides in various parts of the Province.

There is, no doubt, a great deal of justice in the criticism because guide licenses are commonly issued by or through the medium of persons who pay absolutely no attention to qualifications, and so far as the committee is informed there are comparatively few instances in which licenses are refused. It may very easily happen that the guide is a man of no moral intention of observing the game laws himself, or that he does not know how to handle boats or take

care of people entrusted to his care on the water. He may have had no particular experience either with game-fishing or with the waters with which he is naturally presumed to be familiar.

Guides ought to be a select body of men. They need not be expected to be men of school education, but they should have qualifications for their work in addition to duties prescribed in the keeping of the game laws. The general tone of the service should be carefully guarded from the point of view of improvement of the service itself and the elimination of undesirables. The responsibility of defining qualifications, and of effecting any raising of standards, lies with the Department of Game and Fisheries.

A number of suggestions have been made as to how improvement could be effected.

In places where several guides are in employment, the formation of a Guides' Association would doubtless result in general discussion of qualifications by which, with proper co-operation of the Department, undesirable persons would be prevented from obtaining licenses. The Committee was informed that in at least three places in the Province, such Associations exist. They are managed, however, in each case by experienced resort owners who are themselves interested in maintaining a high standard of service. Doubtless by arrangement or suggestion from the Department the number of such Associations could be greatly increased.

Second, it would be advisable to issue to persons handling licenses for the Department, to hotelkeepers and guides, a booklet setting forth not only the requirements for seeing that sportsmen obey the law, but also a list of expected qualifications, together with some useful information concerning forest damage, and more especially concerning a sanitary supply of drinking water, disposal of waste and general sanitation.

Third, since the Department is likely to have no way, except through its officers or other officers of the Provincial service, in getting at the qualifications of applicants for guide licenses, some method should be devised of obtaining satisfactory references. In obtaining these references, it should be borne in mind that practically every tourist centre has a rascal or two, men who work for tourists and who ply their trade without hindrance simply because local residents do not wish or are afraid to report them. Information should, therefore, be sought, invited and confidentially handled, so that if, for example, there were two or three complaints, the man might, on the next occasion of licensing, be refused.

It is scarcely necessary to point out that many of the guides employed throughout the Province are intelligent men who have keen insight into details of natural history which enables them to know peculiarities of the behaviour of fishes, times and conditions of spawning and similar matters of fundamental value. Sometimes their information is detached and unorganized, but it has the advantage of being observationally correct. A great deal of use could be made of these men by asking them to make seasonal observations and by giving them the necessary instructions as to what to look for. Such a procedure would doubtless add much to their working efficiency.

6.—LOCAL ASSOCIATIONS

In view of conditions existing at the present time in Ontario as regards the large area to be covered and the improbability that the Department alone and unaided will be able to handle the protective service, the assistance made

possible through the existence and further organization of local bodies of sportsmen and conservationists is of the greatest significance.

Some fifty of these organizations already exist in Ontario, and, as indicated by the formation of the Ontario Federation of Anglers, there is a definite movement towards the consolidation of a provincial organization. There has been also more or less suggestion of the formation of a Canadian Association, which would probably be most effective if it represented an amalgamation of provincial organizations. In the United States, there has been a great deal of organization along conservational lines, and a particular reference to game-fish conservation is indicated by the Isaak Walton League, which includes some 2,900 chapters and 160,000 members, and, incidentally, has one or two branches in Ontario.

The most important matter to be primarily understood concerning these Associations is to make absolutely clear that they stand four-square on conservational principles. In the past, there has been some suspicion, probably for the most part not well-founded, that a given local Association was more concerned about getting privileges for its own members than about protecting animal life. Such a condition is, at the present time, unlikely, yet it would be worth while, for the sake of commanding public opinion, that every Association in drawing up its constitution should state its intentions in unmistakable terms and make its membership conform absolutely to those conditions. Under these circumstances, the formulation of a general platform which could be used by any number of local organizations, by a federation of them, or accepted as a general agreement between the Department and the Associations, would be most advantageous.

In the course of the present investigation, various enquiries have been made by the Committee as to what the working relation is between certain Associations and the Government service; more especially what these Associations need in order to prosper, and how they can best be turned to account for the purpose of game-fish protection.

At the present time, the Department by special notice requests the co-operation of sportsmen and others in reporting violations which come under their notice, and Game Protection Clubs are requested to send copies of their by-laws and lists of officers. This undoubtedly is a move in the right direction, and with due reference to the responsibility of the Department could be advantageously extended.

It is important to realize that co-operation must be on some sort of reciprocal basis.

In this situation, probably the first essential on the part of the Government service is to give these Associations some kind of an official rating so that their relation as societies accessory or informational with reference to the service may be established. They might even be assigned definite duties, which would perhaps be mainly along the lines of recommending the local personnel of overseers, special seasonal overseers, deputies and guides. It is obvious that the permanency of a local Association depends upon having a prescribed work to do, and that both responsibility and enthusiasm usually thrive to the extent that authority is given.

It is very necessary that the local Associations throughout Ontario should have more definite means than they now have of encouraging local interest and enthusiasm. A local Association is composed of a variety of citizens of different vocations, but having a common meeting ground on the basis of fish, game, forest or tourist trade interest. It is unlikely that any individual will have available for use material for popular lectures, pictures, or experiences that are more than

mere anecdotes of a sporting kind. Yet such material is of the greatest importance in holding an Association together and in giving it an opportunity of linking in with the social life of the community and in that way building up membership helpful to conservation. The Association is not in any way called upon to compete with local entertainment, but it has to have something worth while to use as the foundation of its meetings.

This gap has to be filled, and the only way in which it can be filled is by an extensive programme of local lectures, exhibitions, etc., arranged at least in part through the Government service and carried out by whatever means available. It may be pointed out that some work of this kind is now being done by the Department of Game and Fisheries and in a more general way by the Provincial University through its Extension Department and local public lectures. Especially with a publicity officer to represent and organize the service, a great deal could be accomplished in this direction with comparatively little effort, making use of various educational institutions and individuals throughout the Province, as well as persons representing various phases of natural resource work in the Government service.

LICENSES AND LICENSING SYSTEM

1.—LICENSES

At the present time, the only type of license which comes into consideration as regards game-fish is the non-resident angling license. This is a fee of five dollars, to which is added fifty cents to be retained by the individual issuing the license. Every non-resident angler is expected to be in possession of this license which entitles him not only to fish but also to export a part of his catch.

In the operation of the non-resident licensing arrangements there appear to be a number of defects. The most outstanding of these is the lack of contact between the prospective applicant for a non-resident license and the issuer of such license. Under the present arrangement, the applicant, in most cases a summer tourist travelling through, is expected to make his enquiries as to who issues licenses, to go to some person, often, if not usually, a local tradesman, buy his license and pay an additional fee for its issue. If the prospective fisherman enters the Province through one of the ordinary Customs ports, he will be concerned with Dominion Customs arrangements and will not have his attention called to the fact that a provincial fishing license is required. Furthermore, if, after ascertaining where licenses may be procured, he calls at a trading establishment after hours, he will not get his license. And finally, if he is in a hurry, as most travellers are, he is likely, unless especially conscientious, to pass on into the wilds without much thought, or, in view of the scarcity of overseer service, without much later inconvenience. The opinion, which is substantiated in various quarters, that the great majority of tourists are conscientious, rather than that the arrangements made for the issue of licenses are good, is accountable in part for the fairly large and increasing amount of revenue that the Province derives from this source.

As regards the issue of licenses, there is, of course, a natural presumption that it should be in charge of the local officers. The fact that these officers are expected to be in the field is probably accountable for the policy of the Department in selecting others to do the work. There is a general sentiment to the effect that the officers should issue the licenses. Their personal presence or absence at the issue of a license is immaterial so long as there is some one in

attendance at home or office to do it. Further, the issue of licenses by officers ought to relieve the Department of some expense or perhaps provide revenue to be used for accessories and equipment. It would be advantageous to establish personal contact between the officer and the applicant, because of the information which the officer can give and because of knowledge obtained by the applicant, of our protective system.

Several enquiries were made by the Committee as to the prevailing method of issuing licenses in the United States, and it appears that the applicant, whether resident or non-resident, applies for and receives his license from the clerk of the municipality concerned. This method has at least the advantage of connecting the issue of the license with a recognized municipal office and, no doubt, also of establishing a custom which is generally understood. In Ontario, however such a method would not be easily applicable.

In the opinion of the Committee, the issue of licenses by local tradesmen, or by anyone who directly profits by the tourist trade, is objectionable for reasons otherwise than above stated. If the tourist himself applies for a license, there is some profit and no feeling in the matter. A dealer, however, profiting otherwise from the tourist trade, is going to think twice before suggesting to the tourist that he has to have a license, and is, on the whole, not likely to do so.

It is obvious that the first step in checking up on the issue of licenses is to see that the non-resident angler is informed about the requirement as soon as he enters the Province. This can be done only at the point of entry, and the information must be available in printed form so that it can be readily brought to his notice or handed to him en route. It is probable that the Provincial Departments have other information, for example on highway regulation, or fire prevention, which could be handled in the same way. It may be that the Customs officers would co-operate by special arrangement with the Dominion Government, but this co-operation, in order to be effective, would involve active effort in seeing that each non-resident tourist receives the necessary information. Otherwise, the Provincial service should provide at the port of entry some means of conveying the information concerning provincial requirements which the tourist must observe.

It would be necessary also that every local Association, Chamber of Commerce or Tourist Trade Bureau should have some notice posted with references to these licenses, and it would be advisable that similar notices should be prominently displayed in summer hotels, boarding houses and camps, so that no one catering to the tourist trade would be obliged to do more than inform the prospective applicant as to where or how the license might be obtained.

Any further checking up of licenses would have to be done by the local overseer, but there is no reason why, in addition to personal enquiry and vising of the license, the overseer should not be informed privately by guides, hotel-keepers, or others as to tourists who may have neglected to acquire their license.

It has come to the notice of the Committee that, in one instance at least, the non-resident fee is very undesirable. In accordance with the general custom, as between any two States or Provinces, the person living outside the State or Province must pay the non-resident angling fee. The Lake of the Woods, however, is predominantly a summer resort water for the people of Winnipeg and other places in Manitoba. The value to Kenora of this trade is considerable, apart from the investments made in respect of summer residence on the lake. The inconvenience of the non-resident fee as applied to visitors from the sister Province is a matter both of individual concern and of civic pride.

So far as the Committee is aware, no one of the Canadian provinces is especially generous in its interpretation of the non-resident angling license as regards other provinces, but some measure of greater recognition of the citizens of a sister province would seem to be in the general interest. In any event, the case of the Lake of the Woods is an outstanding one and should receive consideration.

In view of these circumstances, the Committee recommends re-consideration of the non-resident license as applied to waters traversed by inter-provincial boundaries, in the case of Ontario in relation either to Manitoba or to Quebec, a reciprocal plan might be formulated by which, for fishing in waters traversed by such boundaries, the non-resident license would not be required of citizens of an adjacent province. This arrangement would remove the present difficulty so far as the Lake of the Woods is concerned, and should be productive of good will in all other sections, similarly situated.

2.—RESIDENT ROD LICENSE

There is, at present, no resident license in the Province, but the fact that a rod or angling license or a combined hunting and fishing license is prescribed with fee attached in forty of the United States, and the probability that additional sources of revenue and of registration may be necessary in Ontario if increased Government expenditures on game-fish protection are to be expected, has naturally given rise to some consideration of the advisability of establishing a resident permit and fee.

The advisability of establishing such a license with a nominal fee and with a minimum limit as to the age at which applied, has been generally discussed, both in the course of visits which the Committee made to certain parts of the Province and at the public meeting held in Toronto. While it is obvious that there would be objection, possibly in many quarters, to paying such a fee, the sentiment on the whole indicates that the establishment of a license and fee would have the good effect of bringing about registration of local anglers and of producing revenue. But there is also a general sentiment to the effect that in the event of such a license being established, the Government should apply the revenue directly to game-fish protection and propagation or other game-fish work. The suggestion has also been made that, for the benefit of farmers and others who fish only incidentally, it would be better to have the license apply only outside the limit of the county in which the individual resides.

Sentiment on the whole appears to favour the resident rod license if assurance can be given that the revenue will be used for game-fish purposes. In view of the fact that the Ontario Federation of Anglers and other Associations are now looking to the Government for some definite line of action on the game-fish issue, and the probability that in the near future the expenditure for this purpose will have to be greatly increased, the Committee is of the opinion that the rod license should be established, but not until the need of increased revenue to be applied to game-fish service shall have been dealt with.

In this connection, it may be of interest to point out that the angling or combined angling and hunting license applies to thirty-nine out of forty-eight of the United States. The minimum age limit at which applied varies from no limit to twenty-one years. Eleven of the States have no limit while nine specify sixteen years. The average fee is about \$1.00.

SCIENTIFIC AND TECHNICAL ORGANIZATION

There is at the present time a very general recognition of the value of technical and scientific service and of the part which scientific investigation has come to play in relation to governmental, educational and industrial organization. For this reason, the possible relations to game-fish conservation should be thoroughly explored.

The situation in respect of game-fishes is only a phase of a more general fisheries situation and in a broad sense part of a very general issue concerning natural resources at large. It is a matter of finding out in what directions betterment may be effected by the further organization of service along technical lines and the articulation with this service wherever possible of externally available sources of scientific information, which latter may be expected to assist more directly in the solution of practical problems, or by analysis of basic factors furnish results accessory to that purpose.

So many interests are represented in technical and scientific research coming under the general head that it is worth while, especially at the present moment, to keep in mind that a large part of the obligation of natural resources research falls directly or indirectly upon the Government or other agencies lying for the most part outside of the industrial field. Industries and industrial concerns are sometimes in a position to organize and support their own research departments, and nowadays are generally speaking very much alive to the advantages to them of co-operative research subsidized in part by governmental or other agencies. They are chiefly interested, however, in that phase of the situation in which there is a more immediate prospect of utilization or commercial production. In this way, most perhaps of the really basic factors together with all protective, public and conservational issues naturally fall to the Governmental side.

While no sharp lines of distinction can be drawn, experience throughout the world has shown that scientific investigation helpful to the fisheries may be profitably fostered by a variety of organized interests, including National and State Governments, Commissions, Fishery Boards, Surveys and by all laboratories of state and other universities conducting any type of aquatic research.

During the past thirty years, the need of scientific investigation as an adjunct of technical service and control in relation to game and fisheries in Ontario has been variously commented upon by individuals, Associations and Commissions. During the present enquiry, the matter has been constantly before the Committee, especially through the representations of the Federation of Anglers and the local Associations. Unfortunately, perhaps, the impression has been created in some quarters that little or nothing in the way of scientific investigation is in progress, though, as a matter of fact, a good deal has already been accomplished. This impression is of no particular consequence in comparison with the assurance given that public sentiment will strongly support further organization of scientific and technical work.

With the object of calling attention to the various ways in which further organization of scientific and technical effort may be profitably carried out in the Province, it will be advisable to consider the various auspices under which such work is already being done, the applicability of each to the situation at hand, and the kind of co-operative effort that would likely prove useful. The various agencies are (1) the biological component of the Department of Game and Fisheries; (2) the Ontario Fisheries Research Laboratory, University of Toronto; (3) the Biological Board of Canada; (4) the newly organized Ontario Research Foundation; and (5) the National Research Council of Canada.

TECHNICAL SERVICE AS A COMPONENT OF THE DEPARTMENT OF
GAME AND FISHERIES

In any plan which involves the technical service of the Department of Game and Fisheries on the fisheries side, it would appear to be necessary that the central element should be in the Department itself. In 1925, the Provincial Government made provision for the addition to the service staff of the Department of Game and Fisheries of a biologist who should be concerned principally with the conduct of fish cultural operations. Since then, substantial progress has been made, in part through the examination of the natural characteristics of the waters of the Province, and at least temporary employment of a considerable number of workers for the purpose.

Especially since there has been in Ontario no specific survey organization, and further no means of bringing together various kinds of scientific results of value to the departmental service, it may be presumed that the building of this biological component into a permanent central organization accessory to the more administrative work of the Department could profitably be carried out. The functions which such a division might naturally exercise would include at least some of the following:—

(a) The collection and tabulation of data referring to the natural characteristics of Ontario waters and their natural productivity from a game-fish or fishery standpoint.

(b) Investigation of changes, natural or artificial, affecting fish life.

(c) Examination of the present suitability of waters for fish planting operations.

(d) Analysis of all available records concerning the relative success or failure of former plantings.

(e) Supervision and improvement of technical processes connected with hatchery operations, planting and transfers.

(f) Selection of personnel to be employed in further extension of technical service.

Further organization along such lines as here indicated would, of course, call for increased expenditure of money. But the introduction or development of a larger element of technically trained service should in the long run place the Department on a strong footing, and since we do not know at the present time just how the balance might turn in the next few years as regards supply and demand, or as between adequate conservation and depletion, there would at least be some tangible assurance that the situation was being handled in the right way.

As regards the development of a more scientific or technical component in the fisheries service, the difficulty has on several occasions been suggested to the Committee that the effort to introduce a scientific service into practical fish hatchery operations is likely to result in some sentiment of resentment on the part of practical hatchery men. It was possible, both in Ontario and elsewhere, to make some observations and enquiries on this point, and it appears that the sentiment is largely a carry over from former days. It rarely exists at the present time and need not exist at all provided the proper functions of the operative and scientific or technical services are understood.

Men who are concerned in various practical phases of hatchery operation, while they are not scientifically trained, are probably men who have either been brought up under the tutelage of older operators, or perhaps more usually at the present stage of hatchery development are themselves men of long experience,

and probably also in most cases men who have a personal interest in the process which no prospect of mere employment for income gives. Furthermore, they are anxious about production, know their problems and difficulties and are keenly alive to the possible means of solution.

On the other hand, while it is proper to look forward to the time when everyone concerned with such operations should be adequately trained in a technical sense, the scientific or technical component at the present time must be recruited from younger graduates of the Universities. Such men will not, by virtue of their training, have experience of hatchery and allied operations, but they will have a knowledge of basic factors which will enable them to ascertain cause and effect, to work out specific problems, and above all to ferret out points of weakness by the elimination of which the productive effect of the process can be improved. It is evident, therefore, that the principal business of fish culture is to maintain volume and routine in the process, which must be done by service operators. The scientific or technical function is mainly to investigate, effect, or suggest desirable improvements. The case is not on the whole different from what takes place in industry, namely, that the process and production must be operatively maintained, while improvements nowadays carried out in various ways by scientific helpers or research laboratories, are every now and then brought into the process.

THE ONTARIO FISHERIES RESEARCH LABORATORY

For many years past, investigations dealing with problems of aquatic biology have been carried on in the laboratories of the Department of Biology of the University of Toronto. These investigations had reference only occasionally to conditions in the Province and came to be associated more closely with the operations of the Biological Board of Canada, including the Atlantic and Pacific investigations rather than those referring to Ontario. Some ten years ago, the need was experienced of a more immediate reference of the work of the Department of Biology to fishery problems in the Province and accordingly in 1921 the Fisheries Research Laboratory was organized within this Department for the purpose. The present status of this laboratory is briefly that it has a moderate degree of organization, has maintained annual field parties, has completed a number of investigations on Ontario lakes, and has published over thirty technical reports bearing upon aquatic conditions in the Province. While originally operated without special appropriations, the laboratory has recently through co-operation of the Provincial Government and the University authorities been placed upon a stable footing. As a component of an educational institution, it has an important position as a source of supply of scientifically trained young men.

Keeping in mind the somewhat different outlook of a University Laboratory and the technical component of the Department of Game and Fisheries, they also have a great deal in common, and should on the investigative side be brought into co-operation.

THE BIOLOGICAL BOARD OF CANADA

The Biological Board of Canada is a Dominion organization operating under the Department of Marine and Fisheries. It receives an annual appropriation and, subject to the approval by the Minister of the proposed plans of research and final accounting of its funds, has almost complete control of its expenditures and appropriations. It is composed of representatives of the Universities,

Government Fisheries Service and fishing industry, and it is organized to facilitate the solution of fishery problems by providing grants of money to assist researches, by providing laboratory accommodation on the Atlantic and Pacific coasts for marine investigations, by employing men to engage in major problems, both fresh water and marine, and by conducting practical experiments helpful to the fishing industry. The Board is not in any sense concerned with the training of men, nor with the provision of stipends to permit of younger workers to enter the field of fishery investigation, but its obviously close relation to the Universities which constitute training centres, nevertheless gives it a very important position in that respect. This is especially true as regards the University of Toronto, where the Board has a winter laboratory operated in connection with the Department of Biology, maintaining very close relations and co-operating in the graduate work of the Department.

A particular feature of the organization of the Board is that, while a staff has been built up from year to year in connection with both immediately industrial and more scientific problems, the membership of the Board is maintained on a non-paid advisory basis.

The Biological Board is designed for service in any part of Canada, and has undertaken researches in all provinces. So far as Ontario is concerned, comparatively little has been done, but in all probability a great deal could be done with very little organization. It might be expected, for example, that the Biological Board would undertake work of a larger issue, useful alike to Ontario and other provinces, while the Provincial agencies of one kind and another could be mainly directed towards problems of local geographical or environmental importance. The principal object would be served, however, by any kind of action that would bring the work of the Biological Board in closer relation to the scientific fishery work of the Province. For that reason, efforts should be put forth to organize fisheries research on this broader co-operative basis.

CO-OPERATIVE AGENCIES FOR PROVINCIAL FISHERIES RESEARCH

The successful development of the Biological Board of Canada naturally suggests the question as to whether a similar organization could be developed with especial reference to the Province of Ontario. In this connection, it may be pointed out that the Board has largely solved the problem of how to articulate scientific work especially of the Universities with the Government service and how to relieve the latter of maintaining within itself a scientific component only in part immediately connected with its fish cultural and similar operations. It has also established its composition and membership on an advisory and practically cost free basis, and has provided a normal mechanism of employment of young scientifically trained workers for the most part graduates of the Universities.

In Ontario we have many elements which might be brought into similar co-operation including among the scientific laboratories or Departments of Universities, in the first place, those of Queen's University, McMaster University, the University of Western Ontario and the University of Toronto. An Advisory Board would naturally include representatives of these and of any other institution offering similar facilities, and also representatives of the Provincial Governments, including the fisheries technical service, and of the sportsmen of the Province, and since no practical distinction can be made between research applicable to game-fishes as opposed to commercial fisheries, of the fishing industry as well. The operation of such a Board would consist in defining problems and subsidizing as assisted researches work to be organized in University

Laboratories or employment of trained men for particular lines of economic work. It would require an annual appropriation of a few thousand dollars, none of which except for travelling and other incidental expenses should be used for payment of members of the Board. In the event that it were not found advisable to develop within the Department of Game and Fisheries a full programme of investigation such as outlined above, a larger element of survey and other investigation not so closely connected with the departmental service could be carried out under the auspices of the Board.

THE ONTARIO RESEARCH FOUNDATION

In how far the newly organized Ontario Research Foundation may participate in the solution of local fishery problems is as yet uncertain. It may be taken for granted that any problem connected with the fishing industry would naturally come under the purview of the Foundation, and the question therefore is whether any problem involving conservation, or not involving commercial production, or again referring to productive values only in a sense of increased tourist trade would be included in its scheme of investigation. In any case, the possible relation of the Foundation to game-fish and fishery research should be considered as a part of the present issue.

THE NATIONAL RESEARCH COUNCIL OF CANADA

The Research Council is yet another factor in the general situation. For some years past, the Council has contributed greatly both to the development of economic research and to the training of young university graduates along fisheries and many other economic lines, providing for the latter stipends of different grades which assist them to undertake investigations and by this means provides a natural approach to employment in technical service. Since both the investigations carried out and the stipends provided for younger men are in accord with the normal work of the University Laboratories and the class of investigation here under discussion, it is obvious that in any plan of Provincial fisheries research a great deal of dependence can be placed upon the assistance and facilities afforded by the National Research Council.

SUMMARY

As a result of a general survey of the situation the Committee believes that we have in Ontario a sufficient foundation upon which an adequate plan of game-fish and fishery investigation could be elaborated. The constructive factors concerned are:—

- (1) The further development of the scientific and technical component of the Department of Game and Fisheries to cover at least the immediately practical requirements of the operative service.
- (2) Utilization of the Fisheries Research Laboratory as a medium of aquatic investigation and the training of men.
- (3) The development of a working arrangement with the Biological Board of Canada, by which division of lines of investigation as between the Board and local agencies may be effected.
- (4) The possible development of a Provincial Board or Committee on the lines of the Biological Board of Canada, for the encouragement of fisheries research in the various Ontario Universities, or other co-operating Institutions.

(5) The reference of at least part of a plan of investigation to the Ontario Research Foundation.

(6) Utilization of the accessory financial assistance available through the National Research Council of Canada.

The Committee recommends the further consideration of these possibilities, to the end that conferences may be arranged which will result in a satisfactory working plan which can be developed in the next few years and cover the requirements of both game-fish and commercial fishery investigation.

REVENUE AND EXPENDITURE

The Committee has not examined into and does not express an opinion with reference to revenue and expenditure in connection with game-fish conservation except to call attention to certain phases of the matter which appear to be prominently in the public mind.

There is, for example, a widespread sentiment that the revenues derived from game and game-fish sources should not be regarded in any sense as a source of general, or what is ordinarily termed surplus revenue. This sentiment is doubtless based on the conviction that the stocks of wild animals are in a rather precarious condition, and very likely will be still more so with increase of tourist demand. For this reason, the revenue derived from them should be applied to protective, technical and fish cultural services, and should if anything be augmented from other sources. It is perhaps not so generally appreciated that the Province must make financial provision for a variety of other services which are not on a profit making basis and for which funds must be found.

Since also the appropriations for game and fishery service are doubtless made from year to year on a basis of gradual modification of the detail amounts available as revenue and disposable as expenditure, it is necessary to suggest at the present moment that a complete revision should now take place. The reason is that while the need of conservational work has been gradually increasing, we have had in the past few years a very rapid acceleration of tourist movement and allied changes which has rather quickly made the situation more urgent and has further impressed the whole matter upon the public mind.

There is now valid ground for urging that the expenditures on protective, technical, fish-cultural and other activities of a similar nature for which the Department of Game and Fisheries is responsible should be very substantially increased. And to this may be added the suggestion that it would contribute greatly to public confidence if such sources of revenue as become available from game and game-fish could be shown to have been re-applied to them, and if in general the Department could be put into such balanced position that it could be regarded as assigning its expenditure on the basis of its income, in other words, of simply paying its own way.

THE SITUATION AS REGARDS INDIVIDUAL SPECIES OF GAME AND SEMI-GAME-FISHES

1.—The Speckled Trout

This species has a most varied distribution in Ontario. It is a native species, representing in general a more northern type of habitat and a reproductive cycle quite different from that of the bass, pickerel and other spring spawning fishes. In waters where it occurs naturally, except those also occupied by rainbow or brown trout, it is the dominant game-fish, though often greatly

reduced in size and numbers. It was probably in the beginning more widely distributed than it now is, having been displaced by bass or other fishes of a southern stamp. In some sections of the Province, it has probably been excluded by the development of muskeg such as is characteristic of much of the Pre-Cambrian shield. Before the advent of agricultural and industrial development, the southern part of Ontario was one of the principal homes of this fish, but conditions became changed to such an extent by modification of the waters and other causes that this is no longer the case.

Throughout the northwest section of the Province, the trout problem is largely one of counteracting depletion in waters becoming more easily accessible, or damaged by local industrial development in areas which are of great importance from the point of view of tourist trade. In southern Ontario, on the other hand, it is largely a matter of salvaging a remnant of natural waters in which trout still occur, and of developing a plan by which trout fishing may in a few years be re-established. It may be remarked that there is, in the north-eastern section of the Province, an area in relation to the Ottawa drainage, which has not been considered in the course of the present investigation but which may now, or in the near future, require attention, while northwards on the James Bay slope there have been complaints of depletion of trout owing to power dam construction.

The most outstanding features of the trout situation in the Province refer to:—

- (a) The question of the suitability of the present hatcheries for the propagation of trout and the problem of new hatchery sites.
- (b) The provision of rearing ponds to permit of planting at a more advanced age.
- (c) The feeding of trout.
- (d) The re-establishment of speckled trout in southern Ontario.
- (e) The question of trout transfers.

(a) *Hatcheries*

Apart from the Normandale and Mount Pleasant establishments, facilities for trout hatching in Ontario are provided only by the group of lake hatcheries used for the most part for the hatching of commercial fishes. The only facilities presented by these hatcheries, some five of which are currently used in part for speckled trout, are represented by their equipment of trays and troughs in which either lake trout or speckled trout may be handled. They have no rearing ponds, and moreover little development of such ponds may be expected because of limitations of space and water supply necessary for the purpose. These hatcheries are in general useful only to the extent that they can be made to produce fry in large numbers, which, under present conditions, have to be planted at a fairly early age. Normandale creek and Mount Pleasant, on the other hand, have moderate facilities both for hatching and retaining trout through the fingerling stage, as well as accommodation for adult fish. Normandale creek especially in the last few years has been developed as a combined establishment for retaining adult trout for spawning purposes, and for growing fry to the old fingerling stage. Recently, a building has been provided for hatching eggs through to the eyed stage.

Propagatory work on speckled trout has been in progress in the Province since 1863 or previously. Until 1913, when the Dominion Government withdrew from game-fish work in the Province, the annual distribution of speckled trout

to the waters of the Province had not reached significant proportions, the number for that year being 261,700. Under subsequent operations by the Province, the output showed no great increase or stability until 1921, since when, with the exception of the off year, 1925, the number distributed has varied roughly between one and two millions. The production of former years was listed as fry and fingerlings, but doubtless consisted mainly of fry. The present practice is not only in the direction of producing fingerlings, but also of listing the various sizes according to a convenient method of classification, and the Committee understands that the plans of the Department call for substantial numerical increase. The chief consideration now is what extensions are necessary in order to put the production of late or older fingerlings on an improved basis.

The position of the hatchery system as regards ability to produce speckled trout may be summed up as follows:—

(1) With the exception of Normandale creek and Mount Pleasant, the hatcheries are not on the whole adapted for speckled trout, and would be better employed with commercial fish hatching.

(2) The production of old fingerlings or young fish is now an established practice, reliance being placed upon older fingerlings because of the presumably greater chance of survival, while the advisability as to early fry planting is in doubt. The production of fingerlings was mentioned in the Annual Report of the Department for 1918 as highly desirable, and the report further indicates that in the hatchery system as operated in Ontario at that time, there was no provision for fingerling production. With the exception of the Normandale creek and Mount Pleasant plants, created or modified for the purpose, the situation still holds. It is mainly the lack of controlled rearing ponds, various deficiencies and risks of water supply, and to some extent the lakeshore positions of our general run of hatcheries, which indicates the advisability of seeking better facilities for handling speckled trout elsewhere.

(3) Mount Pleasant and Normandale creek have some advantages and also some disadvantages. The advantages are comprised in the possibility of maintaining open stream runs for trout, pond storage for adult trout, and a runway for sorting. The disadvantages consist of lack of control of headwater supply and prospective volume for future development, and further that if the Mount Pleasant ponds are used for bass, the outdoor accommodation for trout is limited to a stream of no more significance than any good stream or ditch of spring water origin.

(4) It would probably be advisable to develop Normandale creek for trout and use the Mount Pleasant ponds exclusively for bass, thus avoiding the confusion both of mixture of operative methods and physical changes concerned, as well as the possible division of interest that may arise from handling bass and trout together.

(5) Although no computation can be made of the number of older fingerlings or young fish that the Province ought to grow and distribute, it is at least clear that the production of various States is very much greater than that of Ontario, even leaving out of account the practice of distributing fingerlings or young fish as opposed to fry. These States have individually a very much smaller area, but a more advanced demand from sportsmen for supplies of trout. It would be reasonable to suggest that with the gradual elaboration of a plan or policy for re-establishing speckled trout throughout the Province, an annual distribution of five millions would probably constitute the minimum which we should expect.

(6) In view of the requirement of rearing ponds, and the proposed restriction of the general run of Ontario hatcheries to commercial fish lines (including, for the present, lake trout as well as pickerel), it would be advisable to seek new inland sites for trout hatcheries. Two such sites (in addition to Normandale) would probably be a minimum number for present development in southern Ontario, while a special study of the requirements centering on North Bay, Sault Ste. Marie, Port Arthur, and Fort William should be made to determine the possibilities in the north and west sections of the Province. In the selection of sites absolute control of headwater spring sources should be considered as a first essential.

(b) REARING PONDS

The development of rearing ponds in Ontario will doubtless take place along the lines prescribed by practice elsewhere. These ponds are compartmented enclosures, usually in sequence or batteries along a running spring water supply, with a proper gradient to ensure volume of flow and circulation. In the selection of new hatchery sites, the suitability of the terrain for rearing pond construction is probably more important than suitability for hatchery building construction and indoor water supply. At the present time, the most desirable ponds, both from the standpoint of economy of layout and perfect control of the fish, are of cement construction. These are naturally also the most expensive as regards constructional cost. Various less expensive kinds of ponds may be used as occasion requires, but they cannot be represented as being so completely satisfactory because not so well adapted for cleaning, grading, control of disease and other operations necessary for trout culture.

Each new inland hatchery site selected should be chosen with reference to the construction of rearing ponds and the demands of future extension of operations. The advisability is likewise indicated of obtaining more ground area than is immediately necessary, both as regards neighbouring sources of spring water supply and as regards land lying below the plant, along the natural course of the stream valley.

It may be added that the utilization of all possible sites or stream runs on Government controlled property will be advisable for the purpose of increasing the total water area available to the Department for rearing trout fingerlings to a later stage.

(c) *The Feeding of Trout*

Under conditions now existing in trout culture, especially as regards the growing of fish through the fingerling stage and possibly to yearling or adult stages, food supply becomes a far more important problem than in the case of young fry. In the various States visited by the Committee, it was made clear that the problem of obtaining safe and dependable sources of food material is one of the most important phases of trout culture at the present time. This is because reliance has been mainly placed upon liver obtained from stockyards, the use of which is now becoming impracticable because of greatly increased cost. Various experiments are therefore in progress which have to do either with substitutive foods or the evaluation of the nutritional elements present in ration combinations. In all this experimentation, there is naturally an element of convenience or availability upon which the continuance or success of rearing trout as a practical proposition will likely depend. In Ontario, no particular attention has as yet been given to this problem. In advocating, therefore, the

rearing of trout, it is advisable to point out that before very long the entire situation relative to the supply of food for trout in rearing and retaining ponds in this Province will require thorough investigation.

(d) The Re-establishment of Speckled Trout in Southern Ontario

A particular phase of the trout problem is presented by that section of the Province in which, because of long standing agricultural and other industrial development, there is, in addition to depletion, a very great deal of modification of the streams themselves. Generally speaking, southern Ontario has streams which, under the original forested conditions with spring sources or similar cool, clear water, must have been streams pre-eminently suitable and populated by speckled trout. There are still remnants of such waters which afford to a few individuals each year trout fishing of a moderate order.

The re-development in southern Ontario of good trout fishing would be a boon to local sportsmen, some of whom cannot fish otherwise. This would also be in the interest of maintaining the species by the encouragement given to cultural operations.

There are still streams which with adequate protection of headwaters could be made more productive than they are now, and there are streams which with some reconstruction could be replenished. There are doubtless streams and rivers that can never be made to serve again as breeding or fishing ground for speckled trout, but which are perhaps adapted to substitutive species, trout or otherwise.

The co-operation of individuals and local Associations, and even of private Clubs, could be invited in order to further this work. Ultimately there would be established throughout southern Ontario a definite demand for supplies of fish for stocking public waters which the hatchery service, through its rearing and retaining ponds, would be able to fill. This would doubtless result in the development of sentiment favourable to trout culture in the Province, which would be comparable to that observed elsewhere, and which would be reflected in a closer working relation between sportsmen and the Government service.

A necessary preliminary to this work of rehabilitation would be a detailed systematic survey of inland waters by streams or watersheds which would bring together all the necessary information upon which a general plan of trout propagation and eventually of improved public fishing could be founded.

Some work of a survey type has already been done under the auspices of the Department in relation to the Thames watershed.

(e) Transfer of Trout

In trout work, transfer from one region to another even across continent or across the ocean has been generally practised. Some transfers, either to waters previously containing the species; or new waters, have been successful, others not. The eggs, usually transferred in the eyed state to a hatchery in the region to be planted, will produce fish which when planted in local waters may not be able to establish themselves, though the success in trout cultural work indicates that the young have a high degree of adaptability.

In Ontario the chief transfers are likely to be between southern Ontario, where there is now breeding stock, and northwestern Ontario, which possesses available supplies of the famous Nipigon trout.

It is probable that these transfers are neither harmful to trout nor result in undue effort on the part of the young fish to hold their own under new conditions. On the other hand, it would appear that the indiscriminate shipment from one place to another has in it an element of risk, and since in Ontario it should be the case that local supplies are available either in the northwestern or southern parts of the Province, it would be better to rely upon the general principle that locally produced fish would be the more desirable for stocking local waters. Such fish presumably have the advantage of hereditary tendencies applicable to the particular waters from which the parent stock is derived.

2.—BROWN AND RAINBOW TROUT

As indicated elsewhere in this report, it is important that we should have in Ontario a definite policy or line of action respecting the cultivation of native or introduced species. Whatever is done in this respect should be publicly advertised so that more especially the sportsmen of the Province would know exactly what is being attempted.

As regards the native species, i.e., the speckled trout, there is no question as to the advisability of keeping the species in a more or less central position, from the point of view of preference, maintenance of supply, or re-establishment. In many parts of the Province, the speckled trout may disappear by virtue either of water change or through the increasing dominance of competitive species, but the desirability still stands of doing everything possible to assist the native species in maintaining its position.

European brown trout, including therewith the sometimes favoured Loch Leven variety, were introduced many years ago into the United States and have been extensively propagated by artificial means and introduced into various waters. They have been relied upon for the most part to adapt themselves to parts of streams, more especially lower water reaches, which have become modified as a result of deforestation and other processes generally detrimental to speckled trout. They are credited with the ability to live under conditions of somewhat warmer, exposed, sedimented or even slightly polluted water, which would be fatal to speckled trout, waters also in which attempts to re-establish speckled trout have failed. They are trout which are capable of growing to a very large size, and while their introduction has been looked upon with some favour, there is a great deal of apprehension as to the possible crowding out of the native species.

There have been public and private plantings of brown trout in Ontario, and apparently in one instance migration of brown trout from United States plantings. This migration took place from a Michigan planting on the St. Mary's river. Private planting in the vicinity of Owen Sound some years ago resulted in accidental stocking of Sydenham river. Brown trout of a weight of seven to eight and in one instance twenty-five pounds have subsequently been taken in this river. Public plantings were made in 1913-15 and 1918 in certain streams of Perth, Waterloo, Brant and Norfolk Counties as well as in a pond at Glencoe, Middlesex, and the Department has now at Mount Pleasant considerable parent stock of the Loch Leven variety.

In view of the fact that brown trout have already made their appearance in the Province, it is possible that considerable stocking might take place by migration to or from waters in which they are able to grow successfully. But it would be well to bear in mind that in various ways opinion as to desirability

or undesirability of brown trout is very much divided and that in the north-western section of the Province, so far as the Committee has been able to ascertain, brown trout are definitely not wanted.

A particular feature of the situation is presented in southern Ontario, a part of the Province which, it may be presumed, would be more likely under consideration for brown trout. This feature refers to the advisability of first determining the situation as regards the native species since the possible extensions and limitations of the speckled trout have not yet been fully investigated. In some neighbouring United States in which trout are being propagated and distributed, there was formerly the same situation, which has now been corrected to a considerable extent by investigation of speckled trout possibilities under environmental conditions now existing. Such investigation is, of course, fundamental to the issue. Apparently, therefore, all that can be said about the brown or Loch Leven trout in Ontario is, first, that further development of these trout may be looked upon with some doubt; second, that it would be well to determine more definitely for southern Ontario the extent to which speckled trout may be protected or re-established before going too far in introducing substitutes.

Rainbow trout are in many ways in a different position, though the same general questions arise with reference to the desirability of first deciding upon an operative policy to be employed for the native species.

What is popularly known as a "rainbow" trout is apparently not a single species, the term representing either a confusion of two or more original species or varieties or designating hybridized derivatives which have come about by artificial culture. The original species are black-spotted trout belonging to the Pacific slope.

The original transfer of "rainbows" to eastern points took place many years ago, the stock being obtained from the McCloud river, a tributary of the Sacramento, California. This stock consisted of inland stream trout of a type now designated as *Salmo shasta*, and was the parent stock of the trout extensively bred and distributed as "rainbows" in the east. The eastern stock, however, was supplemented by fish from the Klamath river and from Colorado and Nevada, including for the most part, if not wholly, inland stream trout to which the term "rainbow" might be properly extended, even if not of exactly the same racial type.

A most important transfer eastward, however, especially in so far as Ontario is concerned, was that of the steelhead trout *Salmo gairdneri*. This is a coastal river type of the Pacific slope which has the habit of running into salt water and re-ascending the streams to spawn. So far as can be ascertained, the so-called "rainbows" of the St. Mary's river and Lake Superior are steelheads, derived from planting on the Michigan side of the river, and now extending eastward along the North channel and northwestward along the Superior shore. The steelhead apparently assumes readily a land locked or exclusively fresh-water habit, but when free to migrate remains only for a part of its life in streams and as it increases in size moves into open water, re-ascending streams to spawn. It is rather an interesting coincidence that along the Superior shore, where speckled trout had already found conditions suitable for an open water or "coaster" habit, members of an introduced species, having by their original nature that habit, have been able to make use of it to good advantage for comparatively rapid distribution.

Happily the accidental introduction and spread of the steelhead has given rise to no dissatisfaction. It is a splendid game-fish and is thoroughly appre-

ciated where it occurs. There is some doubt whether it interferes in any way with the speckled trout, but apparently there is no serious competition. The Associations at the head of the Lakes have specifically asked that consideration should be given to the planting of rainbows (steelheads) in that region.

In southern Ontario, authentic information concerning rainbow distribution is difficult to obtain, but it may be presumed that the distribution is not extensive. There was apparently an old planting in the Pine river, the original stock of which is unknown, and there were also plantings in the Sydenham river. There is some reason for believing that rainbows from these or some other plantings have migrated along the shore of Nottawasaga bay, including the east side of the Bruce peninsula, and that there are some fish along the west or Lake Huron side of the peninsula. The Department of Game and Fisheries made plantings in 1918 and 1922-26 at certain points in Simcoe, Gray, Bruce and Victoria Counties and in Parry Sound, Nipissing, Sudbury and Thunder Bay districts. The Department also has a small stock under control at Normandale Creek which is of Sault Ste. Marie steelhead origin.

The rainbow trout, allowing for some uncertainty as to the nature of the original stock, has been generally credited with ability to live in warmer or modified waters and its desirability has been discussed in the same way as for brown trout, from the point of view of replacing speckled trout in such waters.

These former ideas, at least as regards the temperature conditions, were found to be erroneous. Both the original stream living McCloud trout and also the steelhead require cold waters. The probability is, therefore, that whatever advantage may be expected of the introduction or distribution of the rainbow and steelhead in southern Ontario would come from the tendency of the older fish to seek the mouth of streams. It may be expected that if the fish thrive in such situations, it will be because the water remains cool, large in volume, or rapid in flow. As to whether a purely stream rainbow can or should be developed in Ontario is a matter upon which no information is available, it being presumed that such rainbows would inhabit waters but little different from those forming the natural habit of native speckled trout. Therefore, before utilizing the rainbow trout we should first determine the possibilities of re-establishing the native species; and second, we should trace the source and nature of the rainbow stock which it is proposed to use for the purpose.

3. THE BLACK BASS

There are two species of black bass commonly distributed throughout the Province, namely, the large-mouthed black bass, which inhabits waters in which vegetation is generally abundant, and the small-mouthed black bass, which prefers clean, open water, living usually in the vicinity of rocky shoals. The two species have a common distribution to the extent that they occur in different parts of the same water in accordance with the physical features cited, and there are many smaller lakes, especially throughout the north country, in which one species or the other occurs alone.

At the present time in Ontario the species most generally under discussion is the small-mouthed bass. This has rather led to the conclusion that the large-mouthed bass is unimportant, which is far from being the case. And since in the subsequent part of this report, except as otherwise stated, the fish considered is the small-mouthed bass, it may be pointed out that with few exceptions the questions raised as to culture and re-stocking refer equally to the large-mouthed species, differences of requirement as to control being mainly along the lines of differences in natural habit.

There are already two areas reported in which re-stocking with large-mouthed bass is necessary. One of these is the Rideau system and the other the Niagara peninsula, including especially Hamilton bay. It is probable that there are many areas throughout the Province, which, either now or in the near future, should be re-stocked with this species, these areas being in general ones in which fishing stock is desired and in which, because of the nature of the water, original or modified, small-mouthed bass are not likely to thrive. For this reason, it will be advisable to make whatever provision is necessary for transfers of adult fish and for pond hatching operations applying to the large-mouthed bass, to be carried out in the same way as for the small-mouthed bass, though on a smaller scale.

The importance of the bass as an angling fish is widely recognized. It is probable, if the facts were known, that the abundance of this famous fighting fish throughout the Province, and especially northwards, is the principal basis of the reputation which the Province enjoys for game-fishing, and one of the chief factors in the increase of the tourist trade. There are waters in the Province that have become famous for trout and for maskinonge, but from the wide distribution of the species it is probable that sportsmen by and large know Ontario mainly for its black bass.

Depletion of the bass in Ontario waters has been commonly discussed during the course of this investigation. This discussion, though qualified in many cases by reports of fair fishing or even of plentitude, indicates that throughout the Province, more especially with the rapid increase of tourist movement in recent years, a good deal of anxiety is being felt as to whether the bass fishing will hold out. It is, therefore, important that the situation should be examined from every angle and that no effort should be spared to maintain what is obviously one of the great sources of enjoyment to our own people and also a very important source of revenue to them through the tourist trade.

As observed in a previous section, it would doubtless be found that there is a relation between the size and numbers of bass now indicated in certain waters, and the amount of fishing which has taken place in them through possibly a long period of years. Taking the range of bass waters in Ontario, some were described years ago as already depleted. Others that appear to be approaching depletion now, have been fished for a long time by small numbers of individuals. Others again have been fished intensively by relatively large numbers of people, but only in the last few years. Presumably many of our isolated lakes have been fished to so small an extent in past years that they still contain bass in abundance.

The whole bass problem may, however, be considered as one issue, because it may be presumed that every water, if not now, will soon be accessible to tourists in large numbers, so that the success of protection and re-stocking will likely be assured only to the extent that we are able to foresee and meet the requirement.

There are certain facts and evidences concerning the bass which have an important bearing upon propagation and re-stocking. These have to do with the real causes underlying depletion in its more recent stages. The falling off of bass fishing in many parts of the country, the fish becoming scarce or those taken being obviously immature, has been variously commented upon. Many possible reasons are being given, such as netting or poaching, poor seasons, change of water levels, taking the fish from the spawning nests and over-fishing by anglers. There is abundant evidence that while any one of these methods or conditions of taking fish may have contributed, angling alone is in the long run

responsible. The recognition of this point is very significant as regards the re-establishment of the species in depleted waters.

The small-mouthed black bass in its native haunts is extremely localized. In lake waters it remains during the angling season around rocky shoals, where crayfish live under the stones, and where, in all probability, these crayfish occasionally become more or less dislodged by movements of the water so that the bass can get them. The bass also frequents shallow runways probably for the same reason. It is likely to be found at or near the mouths of small bays or indentations where there is vegetation and in most cases various kinds of minnows, some of which constitute the most favoured food.

The bass occasionally goes into deep water, but not to any great extent. It is extremely sensitive to temperature and is known to move from inshore positions when the water becomes very warm in the summer outward to the open shoals. The change does not involve any migration, but simply a minor difference in position. There is little tangible evidence as to whether the fish moves or migrates from one part of the shore to another, but it is more than probable that it does not, except within a very small range. River conditions are less open to observation on the point, but here again, especially in smaller rivers and streams, the bass will be found largely in certain positions, more especially at the foot of waterfalls or rapids.

A point to emphasize is therefore that the bass lives at, and does not move far from, the place where it is actually found.

It so happens that practically every angler who wants to fish for bass is similarly limited in position because he will be fishing either from the shore or from a small boat, and in lake waters can as a rule only fish those parts of the water which are not too greatly exposed to the open.

In a word, while the angler seeks the bass where he has reason to believe it will be found, his habits and limitations coincide almost exactly with the natural habits and limitations of the fish itself. Except for the fact, well known to sportsmen, that the bass is occasionally indifferent and declines to be tempted by any kind of bait and that protection is naturally afforded by a water medium, it may be said that the fish has in general no means of escape.

There is an old notion that angling alone will not bring about depletion. In earlier days when fish were abundant and anglers few, the impression might easily have become established that line fishing could make but a small inroad upon the supply. Under present conditions with increasing numbers of anglers and more persistent fishing, the situation appears in a different light. What is true of the game-fishes in general, in this respect is especially true of the bass.

No surprise need be felt that in tourist waters consistently fished, the bass fishing is going down. If, to the other influences making in one way or another for depletion, there is added the element of more or less continuous summer angling, the bass fishing is certain to deteriorate to the extent that it will soon be worthless. It is entirely probable that the bass is not now, and never has been, capable of maintaining itself under the strain of more than a very moderate amount of line fishing.

Bass fishermen everywhere comment upon the scarcity of fish in extensively fished waters. They often recall incidents of fast and furious fishing in smaller, remote inland lakes. They do not, as a rule, reflect that the existence of such good fishing means that the water had been relatively free from fishing and that the supply far from being permanently available could be almost completely wiped out by comparatively little intensive fishing. Such fishing would leave

the lake not only in a condition of deficiency as regards fish of catchable size, but also the remaining fish would be immature and handicapped from the point of view of natural propagation.

The maintenance of a natural supply depends upon the fish being able to spawn naturally and upon the retention of suitable environmental conditions. Under natural conditions, the female bass is capable of producing many thousand eggs and the male fish carefully guards the hatch through the early fry stages. The existence of the ordinary risks and accidents known to occur everywhere in nature, results in a comparatively small percentage of the fry coming through to the stage when they are able to take care of themselves. This percentage is, however, large enough under absolutely original and natural conditions to maintain the species in abundance.

Under the artificial conditions brought about by angling, by various illegal methods of fishing, by modification of water levels, or using the water as a dumping place for waste, the outlook for natural reproduction is greatly altered. The bass is then subjected not only to all the older natural risks but to many new ones. One of the most serious conditions is brought about by the fact that the larger fish have been removed, the smaller and the younger left. These younger fish have to withstand the ravages of vigorous fish such as the pike or maskinonge which feed upon them. The females must at the spawning time produce all the eggs available, which will likely be in smaller numbers, and the males must tend the nests, which they will be less capable of doing because being immature they are more easily captured or chased off by enemies. In addition, general decrease in numbers greatly increases the risk that the fish will not successfully find mates. It is in all probability true that once the number of the larger fish decreases to a certain point, the process of depletion under open fishing proceeds at a greatly accelerated pace.

The conclusion to be drawn from the circumstances as here outlined is that, except for the intervention of control methods, the small-mouthed black bass is marked for early extinction. It is possible that in a few years in all accessible waters, and with greatly increased tourist demand, bass fishing may be a thing of the past. If, for the sake of our own sportsmen and vacationists, or in recognition of the enormous value to the Province of the tourist trade which is so largely connected with bass waters and bass fishing, we wish to prevent absolute depletion, it will be necessary to adopt vigorous measures and to add very substantially to what the Government service is already doing for the propagation and distribution of this fish. In carrying out this programme, not simply one method, but every method which is in accordance with the natural requirements of the fish, or which has been successfully used, should be applied.

The control methods now generally applied to the bass are as follows:

- (a) Artificial or semi-natural propagation by the pond nesting process, followed by planting with advanced fingerling or young bass;
- (b) Distribution of pond grown older or adult bass;
- (c) Distribution of wild bass from lakes or sanctuaries;
- (d) Closure.

All these methods have been used to some extent in Ontario.

(a) Regarding artificial propagation, the fact is now generally known that in the case of the bass and other members of the family to which it belongs, the processes ordinarily used for trout, involving stripping and hatching of the eggs in trays, are not applicable. Bass are late spring nesting species, which

spawn intermittently, the female discharging the eggs a few at a time. The eggs become fertilized by the milt provided by the male and settle to the bottom in a nest or area previously prepared by the male and provided with clean pebble or weed to which the eggs adhere. The artificial process consists in the operation of special ponds for spawning and rearing. All the conditions are maintained as nearly like the natural conditions as possible. Artificial propagation on this basis is subject to many risks, any one of which may result in failure. On the other hand, the process is almost certain of success if all the factors are understood and can be brought under control. In general, the procedure has been under experimentation for many years, and has now become established practice.

Pond nesting and other methods of handling bass have been in practice in this Province for upwards of thirty years. In view of certain comments which have been made in the course of this investigation as to the inability of the Province to hatch bass, or to the effect that pond hatching has been a failure, the situation with reference to propagation and re-stocking may be advantageously reviewed.

During the decade roughly between 1900 and 1910, both the Dominion Government and the Province were engaged in the transfer of adult bass for the re-stocking of Ontario waters. It was while this kind of re-stocking was in progress, and especially about 1906, that the work of the late Mr. Dwight Lydell, which has since become famous, on the propagation of bass by the pond-nesting method, began to be generally known. And it was at approximately the same time, or more exactly in 1908-1909, that the Province made the experiment of nesting bass in a pond near Brantford, and thus obtained the first fingerlings produced under semi-controlled conditions in Ontario. In 1909, 20,000 fingerlings were distributed. In successive years thereafter, the Province built up one by one the series of bass ponds at Mount Pleasant, under the supervision of the late Mr. J. T. Edwards, with the result that by 1917, the number of bass fingerlings distributed was 735,000. In 1918, the bass were a total failure, but in the succeeding years, with one exception, the number grew again until in 1923, 785,000 fingerling bass were sent out from the Mount Pleasant hatchery. The figures given in recent reports indicate that in 1925 the bass were again a total failure, and since that time the number produced as fingerlings has been insignificant, there being 12,500 for 1926 and 5,475 for 1927.

The interpretation to be placed upon the small numbers produced in the last three years will be noted later, but the results of the Mount Pleasant ponds up to 1923 demonstrate a fact that from the present point of view is of great importance. It has been demonstrated that in Southern Ontario wild bass can be successfully nested, eggs hatched, and fingerlings distributed in large numbers. It has not been demonstrated that bass can be propagated under semi-controlled conditions in parts of the Province climatically different or with different conditions imposed by the nature of the terrain as regard construction of ponds or maintenance of suitable water supply, the fact of bass living and naturally spawning in other parts of the Province being of itself no guarantee that propagatory work will succeed.

The success of this development at Mount Pleasant is significant because it established for Ontario a line of practice commonly adopted elsewhere. In the various states visited by the Committee the pond nesting process was represented as, and shown in operation to be, the method generally relied upon at the present day. The conversations which the Committee had with several gentlemen immediately connected with the work indicated, first, that the process is being gradually improved and that much dependence is being placed upon it

as a means of obtaining young fish in large numbers for re-stocking purposes. This applies, of course, to the production of fingerling bass of perhaps up to two inches in length. The production of larger fingerlings, of four or five inches, or older fish and the process of distributing and planting constitute different phases of the matter.

As regards the recent failure of the Province to produce bass in considerable numbers by the pond method, there appear to have been several factors concerned. For example, the general success of the proposition in years gone by seems to have been owing to the energy and enthusiasm of the late Mr. Edwards and the fact that the Department provided him with the necessary facilities and construction to carry operations through from the experimental to the production stage. The fact that the bass propagation for 1925 was a complete failure has not been explained, but it is significant that in comparison with a distribution of 785,000 in 1923, there was already a falling off to the extent of more than one-half, namely, 338,000, in 1924. It is likewise significant that, in addition to the year 1925, certain preceding years, 1918, and also 1907 (adults) were also failures as regards bass distribution. These figures and dates suggest climatic cycles, and since bass are known to be extremely sensitive to temperature, it is possible that periods of low temperature were accountable for the failures indicated in these years as mentioned specifically in the Departmental report for 1918 in part, because of the inability of the hatchery officers to bring the deciding factors under control. So that while it has been represented to the Committee by experts that there is no reason why bass hatching should not be successful under conditions of pond control, the emphasis has naturally to be placed on the extent to which control, either of temperature or other factors, was or can be made practicable.

It may be noted further that the Mount Pleasant site appears to have been relied upon to some extent for the outdoor accommodation of trout and that in the last three years the Department has been heavily engaged in the management of the hatcheries turned over to it by the Dominion in addition to the already existing Provincial establishments.

On the whole, the conditions which have obtained during the last few years have not been conducive to the expansion of bass propagation.

While in the opinion of some the Province appears to be at the present time in a very uncertain position with reference to bass propagation by the pond-nesting process, the fact that the Mount Pleasant ponds were brought in 1923 to a high state of productivity indicates that there is nothing to be feared in the way of further advancement. Furthermore, the fact that the pond nesting method is now an established practice everywhere indicates that success is to be looked for along these lines. It is obvious, however, that a production even to the extent attained in 1923, namely, 785,000, represents a very small number for the entire Province. In view of the great area to be served, the close relation between the bass fishing and the tourist trade and the value likely to accrue from the maintenance of good fishing, the number of bass produced should be greatly increased. While no accurate computation can be made, a production or distribution of between two and one-half and three millions would, in all probability, be nearer the mark.

In looking forward to increased production, it would appear that a minimum number of sets of ponds, each set consisting of six or eight, would be three for small-mouthed black bass and one for large mouthed black bass. The propagation of large-mouthed bass should, in all probability, centre in the eastern portion of the Province. The propagation of small-mouthed bass is now provided for

at Mount Pleasant in the southwestern part of the Province, so that the indications would be for development eastward, perhaps at Glenora, in relation to the Trent system, and south and east of it, while a third development should take place in relation to Georgian bay, and related districts. This computation leaves out of consideration the very important bass waters and tourist fishing waters of the more northerly part of the Province, concerning which we have not at present the necessary information as to the practicability of propagatory work by the pond method.

The selection of sites for bass ponds should be determined on the basis of suitable water supply, which probably need not be of spring source if the head-water is free from pollution and can be kept so. Bass pond sites may be developed in conjunction with trout sites, but in this case all ponds and operations connected with one species should be kept separate from those applying to the other, for the purpose of more direct control of the factors pertaining to each. Such economy of operation as might be obtained in this way would necessitate that the interests of both species were being adequately looked after. Pond culture of bass has been generally recognized as a process requiring very close observation and control, while the rearing of trout through to the advanced fingerling or young fish stage is likely to engage all the effort that a hatchery staff is able to give.

As regards the growth of black bass up to the time of planting, practice now favours the retention of the fish to the most advanced stage possible, the planting of fry being largely discredited. Providing that eggs can be hatched in large numbers, it will be readily seen that planting fry in a very early stage makes it possible to distribute fish in large numbers at small expense, but nothing would be gained by a process which might result in death of the fry. On the other hand, the effort to raise the fish to a length of, let us say, four inches, which is within the range of possibility in one season, counting on fall distribution, calls for a great amount of attention, chiefly in the direction of protecting the fry from the parent fish, in effective feeding for the most part with natural food and in preventing overcrowding and cannibalism. The whole process, therefore, must be kept under careful supervision during the entire summer season when the young bass are growing, but in all probability the retention of the young fish to this later stage is well worth while in order to better ensure success in restocking operations.

(b) It has been shown to be possible to rear black bass to the adult stage completely under control conditions, but the feeding of the young fish at three or four inches or after they are beyond the small food stage, and until adult, constitutes a special phase of the food problem. Since no form of prepared food has been found to be completely satisfactory, minnows, wild or cultivated, must be supplied. The difficulty of feeding bass at this older stage will, on account of the difficulty of supplying food, tend to limit adult bass retention to stock necessary for breeding. In restocking with adults, it is probable that in this Province supplies of wild fish will continue to be relied upon and to be generally if not permanently available.

(c) From all the evidence available, the transfer of adult bass for general re-stocking and especially to provide breeding stock in other waters, appears to have been in many cases successful. For this reason, the utilization of any source of wild bass, for re-stocking waters that are being depleted, is worth considering from all points of view. Any kind of public sanctuary or closed water which the Department may have at its disposal will not only be of value, but dependence in years to come may have to be placed upon supplies of adult bass being available in Government owned preserves. At the present time, the Department has

under closure a small number of lakes but there are throughout the Province hundreds of small lakes which either have plenty of bass in them now, or could be made to contain large supplies under conditions of closure. In many cases, the natural hatchings in these lakes could be used for the supply of fry, which, if taken early, could be obtained in fair numbers and reared in ponds, though probably not in such numbers or good condition as could be obtained by careful use of nesting ponds. In view of the probability that in a few years at least all such lakes now available to the public will be fished out, it would be advisable to bring under reservation or closure a very considerable number, selecting for the purpose, as far as possible, those that can be reserved without requiring personal supervision by Government officers.

(d) Closure.—The results of re-stocking operations for bass in Ontario, so far as the Committee can ascertain, have almost always been rendered questionable because of the retention of open fishing. Waters in which fishing has gone down commonly show large numbers of very young fish. To the numbers of these young fish there have been added by planting numbers of fingerlings. The line of reasoning seems to have been that if young fish are added to young fish the result will be fish that are large enough to catch.

As far back as 1906, the late Mr. J. H. Willmott, Game and Fishery Warden, of Beaumaris, Ontario, called attention to the futility of planting bass in Muskoka lake under conditions of open fishing. Muskoka lake was at that time already far along in tourist utilization and bass depletion. So far as the Committee has been able to ascertain, nothing in particular happened as a result of re-stocking operations with fingerling bass. In all probability what the waters needed was not so much increased numbers of fish, but an opportunity provided so that the fish already there could grow.

While open to some difference of interpretation, the case of Long lake, District of Kenora, is an important one to be considered in this connection. In 1901, and for several years thereafter, the Department of Game and Fisheries transferred considerable numbers of adult bass mainly for stocking or re-stocking smaller lakes. In 1903 over 400 bass were shipped to Long lake in the vicinity of the Lake of the Woods. Mr. Drewry, of Kenora, informed the Committee that on that occasion after a good deal of difficulty 274 bass, some of over two pounds, but for the most part of about half a pound in weight, were successfully liberated in Long lake. A dam was placed at the outlet preventing the fish from descending to the Lake of the Woods. Long lake was closed for five years. Immediately after it was opened to fishing, the dam was destroyed by fire and the bass were then free to move into the Lake of the Woods. The latter was not primarily a bass lake, but at the present time, apart from overfishing, is well stocked in its northern portion, not infrequently yielding fish of three pounds in weight.

The indications are that closure combined with re-stocking either with young or adult bass will prove to be the solution of the bass problem. Indeed, from a practical point of view, it would appear that unless some method, satisfactory and agreed upon by groups of local residents, summer or permanent, is adopted to reserve certain waters or parts of waters so that either the native or introduced fish are permitted to have a few years of uninterrupted growth, there will be little likelihood that fingerling production in ponds or transfer from sanctuaries will be of sufficient effect to justify the expense involved.

Summarized, the solution of the bass problem in Ontario appears to be: (1) Improve the arrangements for obtaining young bass from the Mount Pleasant ponds; (2) Add new sets of ponds, two for small-mouthed and one for

large-mouthed bass at suitable places so as to reach easily the most depleted waters; (3) Develop storage or retaining ponds only if wanted for supply of parent bass; (4) Establish sanctuaries for supply of adult bass for transfers, at first not to provide fishing in the waters re-stocked, but to replenish the supply of well grown parent stock. Encourage individuals or Associations to do the same, the Department obtaining the closures; (5) Effect closures where possible to permit the bass to grow to reproductive maturity and acceptable size. In view of the very great differences existing as regards the extent of bass depletion in the Province, any plan of systematic re-stocking should be made to apply in the first instance to those waters which for a long time past have been subject to continuous drafts upon the bass supply. The most critical areas in the Province include parts of the Trent and Rideau systems together with many geographically associated waters in the south and eastern portions of the Province, Georgian Bay, Lake Simcoe and the Muskoka Lakes.

LEGAL RESTRICTIONS AS APPLIED TO BASS

There has been some discussion regarding the minimum size and number of bass permitted to be taken, and whether or not it would be advisable to prescribe the first six fish captured as the number to be taken, regardless of size. The object of this suggestion is to avoid injury to the fish resulting from careless handling or dragging the fish through the water. In all probability the taking of the first six fish, irrespective of size, would be beneficial, but a regulation to this effect would be extremely difficult to impose with any likelihood of success. It would appear to be more worthy of consideration that an effort should be made to instruct sportsmen in the handling of fish, with the object of avoiding injury. It should be borne in mind that the surface of the fish, however hard to the touch, is covered by an extremely delicate membrane, the destruction of which, even by slight contact with a dry hand, gives rise to surface abrasion which is likely to be followed by an attack of fungus resulting perhaps some days afterwards in death. By minimizing such contacts or any kind of rough handling and taking the fish on light tackle, the undersized ones can be returned to the water alive and uninjured as the regulations require.

Close Season.—In the course of this investigation, the regulation covering the close season for bass has given rise to various comments, and considerable dissatisfaction has been expressed regarding it. The difficulty arises (a) from the present setting of the first day of open season, except in the St. Lawrence river and Ottawa river, on July 1 instead of June 16 as was formerly the case; (b) from the setting of the beginning of the open season to coincide with the beginning of open season for maskinonge; and (c) from the setting of the beginning of close season for both bass and maskinonge on October 1 instead of later.

The discussion on these points as regards the bass centred on the fact that in the Kawartha lakes the cutting off of the last two weeks in June, prevented game-fishing of any kind, the maskinonge season having been similarly curtailed. It was claimed that the lack of game-fishing resulted in great loss of tourist trade. Second, no reason could be seen for placing the beginning of open season so late as July 1 because the spawning of the bass was understood to be well over at that time.

Dissatisfaction with the closing on October 1 largely came from the region of the Rideau and Trent systems, where there is a desire to maintain October fishing for such tourists as are in the habit of taking vacations only during that month.

Regarding this situation, it may be first pointed out that the open season for bass formerly began on June 16 throughout the Province, and it was in response to representations that the spawning period was not over at this time in certain parts of the Province that the regulation was changed to read July 1, except in the Ottawa and St. Lawrence rivers.

There are three factors involved in the case: (1) Difference in time of spawning owing to geographical position and climatic conditions; (2) whether the total number of fishing days should be reduced; and (3) whether fishing for bass and maskinonge should begin on the same date.

As regards the general understanding of these points, it should be made clear that in so far as natural spawning times are concerned the important consideration is the average period each year during which spawning takes place. A good deal of confusion has come into this issue because of conditions which although exceptional are often taken as usual or typical. For example, bass are observed spawning very late in the summer, and it is not unusual to find female bass in the late summer which apparently have not spawned. The experience of such fish being taken confuses the popular estimation of time or duration of the spawning period, and thereby creates a situation which should not enter into the question. It will doubtless be found to be the case that in some seasons spawning is early, in others late, that individual fish will show wide departures from the average and that some females containing large eggs are in reality parasitized fish which are prevented from spawning by occlusion of the egg ducts or changes in the ovaries.

In general, the duration of the spawning period for purposes of regulation should be based upon the average of conditions without attempting to cover every conceivable variation.

It is unfortunate that the time and duration of the regular spawning period for bass and the conditions which modify it from one season to another have not been accurately determined for various parts of the Province. It is known, however, that the average time or duration varies to a considerable extent. This variation must be determined by accurate observation. It has become clear to the Committee that in order to arrive at any fair solution of the problem of open season as applied to bass, and the public fishing privileges involved, the various factors outlined above must be thoroughly differentiated. It would be possible to determine more or less accurately what are the actual physical requirements of time to cover natural spawning. The question as to whether bass are injured by early summer fishing for maskinonge cannot be authoritatively answered. It is quite plain that conservational advantage would be served by lessening the total number of days during which the fish may be taken. On the other hand an arrangement that is intended to serve conservation by reducing the number of days, and at the same time allow scope to tourist trade requirements, is impossible except as a compromise.

The Committee believes that a practical, even if temporary, solution of the difficulty could be arrived at in the following way: Since the period of natural spawning must be covered, unless differential regulation is adopted, the opening date for the Province must be the latest date generally applicable, which may be taken to be July 1. From the reports available to the Committee, it appears that the question of the total number of days is relatively a more important consideration in the case of the bass than merely covering the requirements of close season, so that differential regulation is not as urgently indicated as shortening the open season. The closing date in October is in any case purely arbitrary. If, therefore, the period of open season were estimated for the bass as from

July 1 to October 14, and there were coincidentally provided some type of game-fishing during the latter part of June, whether for maskinonge, pickerel or pike, the requirements would be largely covered.

This method would have two disadvantages. In the first place it would permit of a larger number of days fishing than is probably desirable in order to maintain supply. Second, the possibility would exist of some deception on the part of individuals fishing for maskinonge, pickerel or pike and taking bass at the same time. On the other hand, in view of the general desire to have some type of fishing permissible in early summer and fall, the plan would be worthy of consideration.

In this connection, it will be seen that the bass would receive protection during the early portion of the season in preference to other fishes, maskinonge, pickerel and pike, which, however, are all early spring spawners, maskinonge being further protected by the small number allowed to be taken in one day, while the pickerel and pike, not even yet regarded as game fishes, might be reasonably counted upon to relieve the situation brought about by the prohibition of fishing for bass.

In view of these circumstances, the Committee recommends for consideration: (a) That the open season for bass should be estimated primarily on a basis of allowing fishing from July 1 to October 14, or 106 days, with such later reductions as may be necessary.

(b) That in estimating the duration of open season, the total number of days during which fishing is permitted should be regarded as relatively more important than merely covering by means of a close season the requirements of natural spawning. (c) That consideration should be given as far as possible to the desire for at least a moderate amount of October fishing. (d) That the economic importance of having at least one species of game-fish or substitutive fish available for early summer fishing should be recognized in contrast to the loss and inconvenience of complete prohibition of game-fishing to a date as far along as July 1.

Whatever may be subsequently decided upon as a means of meeting either the demands of game-fishing interests or of conservation, more serious consideration should be given to the question of what is actually taking place in our waters as a result of maintaining comparatively long open seasons. Every hunter is aware that land game can only be pursued for a comparatively small number of days each year without rapid depletion taking place. Except for the protection afforded by the water medium, there is no reason for believing otherwise than that the bass and other game-fish are in the same position. Any other point of view means either that previously there has been a lack of consideration of this possibility or it has been taken for granted that game-fish would in some miraculous way maintain their numbers irrespective of the draughts made upon them.

4.—THE MASKINONGE

Although widely distributed throughout the Great Lakes and connecting waters and in various inland situations, this species has mostly a local significance. While generally appreciated as a magnificent game-fish, it is in many waters taken incidentally by sportsmen angling for other fishes, especially bass or pickerel. In such waters, the question of abundance or scarcity is not a live issue. In other waters, however, notably the Trent waters from Balsam lake to Lake Ontario and the Lake of the Woods, possibly also the southern portion

of Georgian bay, maskinonge is an outstanding or predominant game-fish. It is, therefore, relied upon by sportsmen and also by others who profit from the tourist trade, so that maintenance of supply is a matter of considerable importance. Some waters, especially of the St. Lawrence in days gone by, have been important maskinonge waters, indicating that if replenishment is possible, efforts should be made in that direction.

In considering the situation as regards this species, reference may first be made to the question of the number and size of fish permitted to be taken. The regulation permits a maximum of two maskinonge per day of no specified length. It has been suggested to the Committee that in the southern portion of the Lake of the Woods there should be a restriction to one fish a day of a minimum length of thirty-six inches. While, however, this would have the effect of cutting down the number of fish taken from the water, it would also result in a large number of fish being returned to the water possibly in a damaged condition, the effect of which should be estimated, both as mechanical injury and later injury owing to infection. In view of the small number allowed to be taken, it is probable that the removal of smaller fish, with which sportsmen are generally satisfied no restrictive or competitive length being set, is on the whole the most advantageous arrangement.

The close season for maskinonge is now established as from the 1st day of October to the 30th of June following, except in the St. Lawrence and Ottawa rivers where the close season is from the 1st day of October to the 15th day of June following. The duration of this close season has been under discussion, especially as to the time of opening in the Trent waters, and as to the time of beginning close season generally.

As pointed out previously for the bass, the question of the date of beginning open season has to be determined on the basis of the following possibilities, partly a matter of natural requirement and partly a matter of general conservation, namely, (1) the average time of the year and duration of the spawning period, to cover which the fish require protection; (2) the desirability of limiting the total number of days during which the fish may be permitted to be taken, the object being to conserve the supply; (3) the desirability of having angling begin at the same time for both bass and maskinonge, the object being to avoid having the late spawning species (bass) taken while on the spawning beds.

In the case of the Trent waters, more especially in the Kawartha division, objection has been made to the date of opening, July 1, on two counts, namely, that the prevention of game-fishing during the final two weeks in June is a hardship on individuals more or less dependent upon the tourist trade, and further, that since the spawning season for the maskinonge is well past by June 16, no useful purpose is served by postponing the opening to July 1, except as a limitation of the total number of days during which fishing may proceed.

The spawning period of fish being largely dependent upon temperature, it is reasonable to suppose, as certain representatives of the Kawartha lakes have maintained, that the time of spawning for various fishes would be relatively earlier in the Trent system than elsewhere, especially in the upper and northern lakes. And the fact that the maskinonge, like the pike, is a relatively early spring spawner, would indicate, in conjunction with the probability of higher temperature, that the element of danger to natural propagation of this fish from opening on June 16, may be left out of consideration. Unfortunately, in this case as in so many others where records of spawning times and temperatures should have been available from all parts of the Trent system, we have at hand

only detached observations. It has been reported to the Committee that maskinonge spawning in the southern portion of Lake of the Woods is well over by June 16, though there appear to be no technical observations available on the point. There is an enormous discrepancy between the present date of opening in Ontario, July 1, and the date of opening for the same waters lying within the State of Minnesota, May 15. It will be borne in mind also that, if a uniform regulation is to be applied for Ontario, earlier opening must be decided upon a basis other than that indicated for the Kawartha lakes.

In regard to limitation of the total number of days during which fish may be taken, both the spring opening and the fall closing are concerned. Regarding the latter, there is some complaint of the closing of the season on October 1, the objection being that there are many sportsmen whose trade is valuable, who wish to fish at that time and that no protection save that derived from direct cutting down of the number of days fishing is afforded. The question is, therefore, for both spring and fall, a matter of the number of days fishing.

Neither in the Trent system nor in the Lake of the Woods has there been as yet any great amount of complaint of maskinonge depletion, these waters being the only ones, from the point of view of the maskinonge, which have been urged upon the attention of the Committee. There is, therefore, no criterion to determine whether, except as a purely conservational issue, the total number of days should be cut down or not. It may be presumed that the persons immediately interested in the maintenance of good maskinonge fishing in those regions realize what will happen under conditions of disregard of this important relation between the total number of fish taken and the maintenance of the supply.

In discussing the matter in this way on a basis both of conservation and the obvious advisability of meeting, as far as possible, the requirements of tourist trade, the Committee realizes that in the future it will be the shortening of the total number of days during which maskinonge are permitted to be taken that will prove to be the deciding issue. Game-fishing for both maskinonge and bass covers practically the entire summer, or approximately one-third of the year. It is during this time that the fish have their opportunity to obtain in abundance the materials necessary for sustenance and growth.

As to the desirability of opening the angling season at exactly the same time for two species of fishes, in this case maskinonge and bass, there is not the slightest doubt as to the conservational value of postponing the date of opening, but the practical question now under discussion is, first, whether the lack of all game-fishing early in the summer unduly discourages tourist trade, and, second, whether any particular good is accomplished by preventing the capture of one species while another, in this case the bass, is on the spawning beds. The answer to the first question is supplied in the case of the Kawartha lakes and the Lake of the Woods, where there is apparently a good deal of loss. In many parts of the Province where tourists do not begin to move before the early part of July, the matter is of no especial consequence.

As regards protection to spawning fish, there is probably no serious difficulty because even if there were an earlier opening for maskinonge, the fact that these fish probably feed upon bass, suggests that the removal of some of them during the spawning time of the bass might be as significant as the possible destruction of some of the bass by careless sportsmen fishing for maskinonge over, or in the deeper water adjoining the spawning beds.

It would appear that the only practical method of meeting the present situation, if the loss of June and October fishing is to be temporarily avoided, would be along the following lines: In maskinonge waters or in combined

maskinonge bass waters, the maskinonge being the earlier spring spawners would have to bear the stress of late June fishing. The opening of the maskinonge season on June 16 would in all probability cover the spawning requirement for all parts of Ontario and allow a good margin of safety for the Trent waters. Incidentally, in the Lake of the Woods an arrangement should be sought with the State of Minnesota by which the disparity of times of opening would be removed and the uniform date of opening be determined on a reasonable basis.

The fall closing for maskinonge must be estimated on an arbitrary basis. The conditions applying are the same as for the bass, with this exception, at least as reported to the Committee, that October fishing for maskinonge is especially desirable and attractive and that mid-summer fishing is not of great consequence. If the open season were estimated as extending June 16 to October 14, which would cover in part the requirements of early summer and at least early fall fishing, the total number of days involved would be 120, but a curtailment of fishing might be provided for by closing a certain number of mid-summer days, more especially if depletion were threatened.

There are certain aspects of the maskinonge problem which have to do with propagation. In the near future, artificial propagation will have to be extensively developed, first, to ensure, if possible, maintenance of the supply in waters now dependent upon maskinonge fishing, and at least some others, including perhaps the southern part of Georgian bay, where maskinonge fishing is especially desired; second, to attempt at any rate to re-establish the maskinonge in waters such as the St. Lawrence, where in former years the fish were abundant.

A special significance is given to the Trent system because of the presumed destruction of spawn by spring lowering of the water, and the outstanding importance of maskinonge fishing. Since, as pointed out elsewhere, it does not appear that the operation of the canals, however carefully controlled, can do otherwise than effect some injury, the active development of maskinonge hatcheries already begun by the Department should be seriously considered for the entire Trent system.

In the case of the St. Lawrence, that portion of the river between Gananoque and Lake St. Francis was formerly a well-known and prolific fishing ground for bass, maskinonge and pickerel, but is now seriously depleted. The difficulty exists in this region that the river is international water and that there has been here, as elsewhere, a general lack of co-operation as between the Provincial and State interests concerned. It has been ascertained by the Committee that New York State has done considerable planting of maskinonge fry in the Oswegatchie river which empties into the St. Lawrence, and at other points on the river. So far as Ontario is concerned, probably a great deal could be accomplished in this direction, more especially if, in view of the present requirements of planting, the hatchery work could be organized at certain shore points so as to cover both the main portion of the St. Lawrence as above indicated as well as the shore west of Gananoque and especially the environs of Prince Edward County.

Because of the prospective importance of maskinonge propagation and also because of certain comments that have been made with reference to the preliminary work that has already been done in Ontario, the Committee has been to some pains to enquire concerning the present practice and outlook of maskinonge propagation as carried out in the special hatchery maintained by New York State on Lake Chautauqua. In this establishment some five to six million eggs are hatched and fry distributed annually. Some five millions are returned to Chatauqua, while about three-quarters of a million are distributed

to other points in New York State, including those above mentioned to the St. Lawrence river. The eggs are extremely delicate and require expert handling at particular stages. The process is, however, well established and ought to be successful if carried out by capable men. The fish have to be distributed in the early fry stage, no plan having been found by which they can be practicably reared in large numbers to fingerlings or older stages. This is an undesirable feature, both because of the difficulty of ascertaining whether the fish when planted will have a fair chance of surviving, and because the time during which distribution must take place is strictly limited to a few days. On the other hand, the variety of waters in which maskinonge could be planted in Ontario is so great that in all probability very little study would suffice to place the fry where they would at any rate have a fair chance to come through to the stage where they would be able to shift for themselves.

In the particular situation that we have in this Province, both as to the time required to develop propagatory work and the importance of maintaining maskinonge fishing in certain waters to which many sportsmen have already become habituated, it may be earnestly commended to local residents of maskinonge waters that they should not rely at present, nor in the near future, upon the artificial propagation of maskinonge to maintain supply. They should, on the other hand, wherever possible, note and report injury at any time of the year to areas commonly used by maskinonge for spawning, hindrances to migration for spawning purposes of the parent fish, hindrances to return, and actual destruction of spawn. Some of these injuries are presumably inevitable in the Trent system, but nevertheless attention should be concentrated upon the practical necessity of protecting the fish as regards all conditions pertaining to natural propagation.

Summarizing the information at present available to the Committee, it appears that the maskinonge situation justifies the following recommendations:

(a) That the open season for maskinonge should be primarily estimated on a basis of allowing fishing from June 16 to October 14, or 120 days, with such later reduction in the total number of days as may be necessary.

(b) That for the present the beginning of open season should be regarded as for the purpose of covering the latest average date of spawning in the Province.

(c) That the maskinonge should be selected for late June fishing rather than the bass.

(d) That the convenience and value of having a game-fish or substitutive fish available for late June and early October fishing should be recognized as long as or to the extent practicable.

(e) That public attention should be called to the future necessity of materially reducing the total number of days during which maskinonge may be taken.

(f) That maskinonge propagation should be further developed for the special purpose of serving the Trent system, re-establishing fishing in the St. Lawrence, and providing where necessary, because of depletion, for such other parts of the Province as rely mainly upon maskinonge fishing.

5.—THE PIKE

There is probably no species of fish in the Province concerning which there is at the present time greater divergence of opinion than the common or northern pike. It is a general inhabitant of Ontario waters, usually in association with bass, pickerel, maskinonge and other lake fishes, but also occasionally occurring

in the same waters as speckled or other square-tail trout. It is not included as a game-fish in the Dominion regulations and has no protection except that implied in the prohibition of commercial fishing in many waters.

It has been represented to the Committee on behalf of certain sections of the Province that the pike deserves greater consideration because it is a valuable fish, both from a game-fish and tourist standpoint. It has been represented on behalf of other sections of the Province that the pike is a coarse, piratical fish, highly injurious to other fish and that it should be removed or exterminated. The latter opinion is shared by many sportsmen and practically all commercial fishermen.

The esteem or preference accorded to the pike is apparently in part because of characteristics which the fish possesses by nature, even in waters where bass, pickerel or maskinonge are available. It may be presumed, however, that where supplies of more desirable game-fish become depleted, other species are called upon as substitutes, and this is no doubt what is happening at the present time in some sections of the Province in the case of the pike. In a word, the pike is being accorded a game-fish value, partly for its own sake, and partly as a substitute species.

In the discussion of the control of this species, it would be well to bear in mind that apart from the question of local esteem, certain natural relations of the fish are important.

It is known to be a fact that the pike is destructive to other fishes, and in the general range of associations of species, it is in all probability especially destructive to the bass. Under conditions of intensive fishing for bass, this destructiveness, if capable of analysis, probably would be shown to be of greatly increased significance. In the general run of fishing in game-fish waters, the pike, in all probability, would become in time the dominant fish.

On the other hand, under conditions generally obtaining throughout the Province in waters that can be described as combined bass, pike and pickerel waters, each species has been able to maintain itself, originally in abundance, by virtue no doubt of differences in natural habitat relieving or protecting it from undue competition. It is possible, therefore, that removal of pike in waters where the fishing is predominantly for bass would result in the maintenance of a more favourable balance.

A particular warning may be issued against the wholesale condemnation of pike or of other fishes that can be turned to account for sport fishing. Even a casual examination of the regulations and practices in force elsewhere shows that some species, for example catfish and sunfish, which in Ontario are scarcely recognized as of any value, are both protected and propagated. It may easily come to pass in Ontario that our supplies of game-fishes will ultimately be exhausted and that we shall be glad of having pike or any other fish which will serve the purposes of providing sport fishing. Furthermore, the removal of pike is frequently suggested without thought of the consequences either on the score of the direct injury to other fishes by the operation of removal or of the possible effect upon the natural balance of species and food organisms of the water.

In the case of the pike it would appear that the possibility of having any control method uniformly applicable to the whole Province is absolutely out of the question. Either the species must be controlled according to particular sections of the Province or not at all. Where bass, and possibly trout fishing is predominant and pike are plentiful, it is probable that reduction in number of the pike should be effected. This is being done by the Department at the present time for the better protection of the trout in the Nipigon river. In the interest

of other fishes, the work should be done uniformly under Government supervision. Where, on the other hand, pike fishing is now predominant, for game-fishing purposes, or in sections of the Province in which the pike is generally recognized as desirable from a game-fish or tourist standpoint, protection should be afforded. Such waters are probably at the present time in the minority in Ontario.

The Committee suggests the following provisions:

(1) That the pike should have a semi-game fish rating which on the game-fish side would recognize restriction of capture to angling in game-fish waters.

(2) That in sections of the Province in which pike fishing is relied upon for game-fish or tourist purposes, the usual protection should be given to the extent of close season and maximum number permitted to be taken in any one day.

(3) That where other fishes are the predominant game-fishes removal of pike as undesirable fishes should take place only under Government supervision.

6.—LAKE TROUT

As outlined in a previous section the necessity of further adjustment of game-fish and commercial fish rating has arisen through increase in demand and value of the game-fish interest. It is no longer possible to look upon the lake trout as a purely commercial fish, even in waters open to commercial fishing. With increased demand for tourist fishing, there is more general recognition of the fact that the lake trout is by nature well adapted for sport fishing; further that it is to some extent available in water easily reached by sport fishermen and, generally speaking, even in summer available in moderate depths,

There appear to be at least five aspects of the lake trout situation which are of interest to game-fishing, namely:

(a) In inland waters close season protection for lake trout, formerly applied only to commercial fishing, has recently (1929) been extended to angling, the latter being no longer excepted.

(b) In some inland waters of the Province commercial fishing is allowed.

(c) In the Great Lakes, including more especially certain all-Canadian waters, Georgian bay, the North channel, and the Bay of Quinte, there is no close season for lake trout.

(d) In the Great Lakes, especially in the waters above mentioned, game and commercial interests overlap.

(e) Even in commercial waters, anglers may take not more than five lake trout while commercial fishermen may take all they can catch.

Commenting upon this situation, it may be pointed out that in the years prior to 1929 the provision for close season for protection of lake trout in inland waters applied to commercial fishing but not to angling. No distinction was made as regards inland waters open to commercial fishing as opposed to waters reserved for game-fishing, though it may have been presumed that in larger areas open to commercial fishing there was no particular need of angling restriction, or possibly also that the minor use of non-commercially fished inland lakes for angling purposes did not result in any great drain upon the supply. No such view is, however, justifiable under present conditions, in the first place because lack of protection during the spawning season is unwise and thriftless in any

case, and, second, because especially in smaller lakes the supply of lake trout is probably limited by food factors, while deep or summer trolling on the part of sportsmen and residents is growing and will doubtless in future be greatly increased. In view of the fact that the fish may easily be taken throughout the summer on copper or other deep running lines, and may similarly be taken at or near the surface in spring and fall, or even taken through the ice in winter, it is obvious that protection afforded them during the spawning season when in a most vulnerable position upon the shoals, has the double advantage of affording the necessary protection for the spawning process itself, and of clearing the way for the identification of individuals currently reputed to profit by the fall run of fish by capturing them with less worthy gear.

Reference has already been made elsewhere to the desirability of having a definite policy in the direction of conserving game-fish in inland waters and of reducing the amount of commercial fishing, except where the lack of tourist demand or other conditions characteristic of the larger bodies of water demand consideration.

Reference is also made elsewhere in this report to the unfortunate lack of constructive handling of the close season issue as regards the Great Lakes or international boundary waters. In respect of game-fishing and except for certain prohibitory inshore lines, the non-existence of close seasons in the Georgian bay, the North channel and probably other portions of the shore of the Great Lakes removed to a considerable distance from the international boundary, results in the destruction of lake trout during the whole time that they are in shore for purposes of natural propagation and is in complete negation to the laws of common sense.

The overlapping of game-fish and commercial fish interests is indicated in inland lakes now open to commercial fishing licenses. This may be expected to be eliminated by a general policy looking in the direction of reducing commercial licenses where game-fish interest predominates. In the Great Lakes, more especially in the waters now extensively used or beginning to be developed as tourist resorts, the commercial fishing appears to a certain extent as an encroachment upon angling privileges. What is indicated in this case, and in all probability more especially in the Georgian bay and the North channel, is that the entire inshore zoning arrangement for the protection of angling should be reviewed and where necessary the commercial fishing privileges arranged so as to fall entirely outside of areas in which angling predominates.

As an example of the present condition, it may be pointed out that the main or northeast shore of Georgian bay with its 30,000 or more islands has in the course of time come to be occupied by a very large summer resident population, including some 2,500 private cottage owners as well as tourists at hotels and summer camps. It is a region where a very large percentage of visitors are interested in game-fishing. As far back as 1892, a Dominion Commission recommended the establishment of a commercial fishing line extending along this shore, inside of which no commercial fishing was to be permitted. This Commission defined the line and the definition was confirmed by a later Commission in 1908. So far as the Committee has been able to ascertain, this line was not legislatively confirmed, but it has nevertheless, in general, been adhered to in the issue of commercial fishing licenses.

Under present conditions, this line has several disadvantages, namely:

(a) On various parts of the shore it leaves outside and in the commercial fishing zone many stretches of shoal water which should be recognized as game-fish and spawning areas.

(b) The line was proposed thirty-seven years ago when the tourist requirement of this shore was but a small part of what it is now.

(c) Commercial fishing has for one reason or another been allowed to some extent within the line.

(d) There being now no close seasons for lake trout in Georgian bay, the commercial fishing line should be placed far enough off shore to ensure the maximum use of the shoal area for spawning.

In this particular case, the suggestion has been made, and the Committee is in accord with the principle, that the line should be re-defined so as to bring the commercial fishing not less than five miles off shore.

Comment has been made during the progress of this investigation on the difference in privileges as between angling and commercial fishing in the same waters. Anglers are allowed to take five fish in any one day while commercial fishermen naturally take all they catch. This restriction of the angler has an obvious value, both in respect of purely game-fish waters and the utilization without wastage of the fish captured. On the other hand it becomes inappropriate and to a certain extent ridiculous when, for lack of zoning arrangements between game-fish and commercial areas, it is applied to anglers in the Great Lakes.

As regards propagation, viewing the matter from the standpoint of the game-fish requirement only, it may be observed that the hatcheries of Ontario and the operations involved in supplying them with eggs are eminently suited to the handling of lake trout eggs in large numbers. The hatcheries, however, are not equipped for raising fry to the late fingerling or older stage, except to the extent of handling small numbers in the inside hatchery troughs. The problem as to whether rearing facilities should be provided, while probably not in question as to general desirability, cannot be ascertained because of the uncertainty that exists as to whether supplies of young fish are greatly required for game-fish waters. The raising of lake trout beyond the small fingerling stage is apparently not in general practice.

In 1927, the Ontario hatcheries distributed somewhat over two million lake trout fry to game-fish waters and about nineteen and one-half millions to commercial waters. Of the latter, upwards of fifteen million went to the Great Lakes. There is no close season on the Great Lakes. Sentiment among commercial fishermen appears to be in favour of unrestricted fishing, reliance being placed upon the hatcheries to maintain the supply. The propriety of the Province constructing and maintaining hatcheries under these circumstances is open to question, let alone the propriety of establishing rearing ponds for lake trout. This state of affairs may be considered to leave open the possible issues that such ponds may be advisable for the supply of lake trout to game-fish or inland waters alone. In this connection, while as a rule lake trout are not represented as game-fish upon which major reliance is placed, there are, as reported to the Committee, important exceptions—for example, Sharbot lake and Lake of Bays—and there are possibly many waters in the Province in which lake trout re-stocking would be of special significance in comparison with the practice now in operation of the general re-stocking of inland waters.

In the case of the lake trout, the Committee recommends the following points for consideration:

(a) That lake trout should receive a game-fish or semi-game-fish rating which would recognize restriction to angling in areas where the interests of

angling may be held to predominate, and that in addition to present restrictions, close season protection should be afforded both on the basis of the angling and the commercial fishing requirement.

(b) That special attention should be given to the re-stocking of certain inland waters in which lake trout are relied upon for major game-fishing requirements.

(c) That the commercial fishing line extending along the main or north-east shore of Georgian bay should be re-drawn some five miles off shore with the object of giving greater attention to the predominantly game-fish interests of this region; further that the principle be applied to other areas in the Great Lakes as indicated elsewhere in this report.

7.—THE PICKEREL

The species commonly designated as "pickerel" in Ontario are properly speaking pike-perches. The term "pickerel" is more appropriately applied to a young pike or by inference and rather general usage in America a small species of pike. The designation "pickerel" is, however, so commonly used in Ontario that it is here retained. In this Province, some four species or varieties of pickerel or pike-perches occur of which only one, the so-called yellow pickerel or dore, is of significance from the game-fish standpoint.

As indicated elsewhere in this report, many years ago, before the necessity of protecting the game-fish and of protecting the natural propagation of fishes generally, all species of fishes were taken in any number and freely bought and sold. The pickerel was an abundant fish, so much so that some of the incidents reported as to its capture in enormous numbers and quantities seem almost incredible at the present day. The fact that the pickerel is not such an actively fighting fish as the maskinonge or bass, doubtless gave to the species a second-rate ranking when better game-fish were abundant. And its occurrence in enormous quantities, especially in certain parts of the Great Lakes, readily gave rise to a commercial fishery, and to the gradual recognition of the commercial interest as being the principal one so far as the pickerel is concerned.

What has been said elsewhere regarding the game-fish importance of the lake trout is true in a much larger measure of the pickerel. It is a vigorous, carnivorous species which has an almost exclusively inshore range. When fished for at the proper time of day or in dark waters, it readily takes the angler's lure and has sport qualities which at least satisfy the ordinary requirements of game-fishing. It has excellent table qualities and in this respect is preferred by many sportsmen to the black bass. Being an early spring spawner, it may be fished for when bass are on the spawning beds. In practically all bass waters in which the pickerel occurs, it tends to share honours with the bass. Already thirty years ago in older tourist waters, more especially the main Muskoka lakes, it was a commoner constituent of the angler's catch than the bass itself. Throughout the main shore waters of Georgian bay, and doubtless elsewhere in the Province, it has been an important buffer for the black bass, providing an acceptable substitute, especially where supplies of bass were becoming depleted.

In all bass waters, in which it may be anticipated that closure will in the near future be necessary, the game-fish interest will have to be met by the substitution of pickerel, otherwise there will be no game-fishing, with consequent dissatisfaction among sportsmen and probably great injury to the tourist trade. Even in waters that are not primarily bass-pickerel waters, for example, in bass-maskinonge waters the same thing is likely to occur.

In the case of enforced closure or of advanced depletion as applied to the principal game-fish, the situation is likely to become critical. This would indicate the advisability of making certain wherever possible that such game-fish waters should be stocked with pickerel, and further that where attempts at stocking with pickerel have previously failed, special efforts should be made to ascertain if by any improvement of method the successful introduction of pickerel may be accomplished.

It is doubtful whether a fish of the general qualities of the pickerel should ever have been regarded as a commercial fish. But the point of view that the pickerel is or ought to be so regarded is so thoroughly ingrained and taken for granted by commercial fishing interests that the suggestion of reduced licensing of pickerel fishing would undoubtedly lead to considerable opposition. There seems to be no doubt, however, that in regions suitable for summer residence, and occupied or beginning to be occupied by increasing numbers of summer residents, tourist hotels, or camps, it will be necessary very soon to reserve the pickerel fishing for angling purposes.

Under these conditions, it will not be sufficient to reserve from licensing waters immediately in the vicinity of such resorts, because the pickerel after the spring migration inshore for spawning purposes is likely to move to a considerable distance off or along shore. The existence of commercial fishing in the general region, though it may be some distance away, may have almost as much effect so far as the stock of fishes available for angling is concerned as if in the immediate vicinity. In the case of the main or north-east shore of Georgian bay, it is doubtful if the so-called commercial fishing line is sufficiently distant from the main shore and islands to protect the pickerel which are immediately needed on that shore for game-fishing purposes.

At the present time, the pickerel has but little protection in the Province. In angling, not more than eight fish may be taken. They must be of a minimum length of fifteen inches and may not be sold.

In the Great Lakes and in such inland waters that have commercial licensing for pickerel these restrictions possibly have some little value, but are nevertheless of no particular significance. In waters where game-fishing only is permitted, the restrictions have somewhat greater value. It is obvious, however, that since eight fish of the minimum length indicated might easily mean some twenty or twenty-five pounds taken by one person in a day possibly in addition to other fish, for example bass, the present maximum number could with advantage be reduced.

There is at present no close season for pickerel in the Great Lakes, including Georgian bay and the North channel and connecting waters.*

As pointed out elsewhere for the lake trout, the lack of a close season on the Great Lakes is unfortunate because of the fact that no protection is given for insuring natural propagation. It is especially unfortunate in the case of Georgian bay, an all-Canadian water, the shores and islands of which are occupied by very large numbers of summer residents.

Artificial propagation of the pickerel is extensively practised. The young have to be planted in the fry stage. The Province has been engaged in pickerel propagation since 1918, and planting has in general taken place in both game-fish and commercial waters. For some time previous to 1918 a certain amount of artificial propagation and planting was carried on by private interests. The

*Comment on the lack of close season protection for pickerel in inland waters is apparently based upon the statement contained in the Departmental book for 1928, from which the regulation in force in previous years, and recently confirmed (1929) was for some reason omitted.

pickerel hatchery at Port Carling is especially designed and situated to serve the game-fishing of that region. In 1927, pickerel distribution amounted to upwards of two hundred million to commercial fish waters, shared to some extent by game-fishermen, and upwards of thirty millions distributed to game-fish waters alone.

In view of the probability that greater dependence will in the future be placed on the pickerel it would be advisable to have a special study made of areas becoming depleted of bass with the object of concentrating to some extent upon pickerel planting in such waters. It would be advisable also to determine the results of planting in game-fish waters as far as practicable, in order to have for future propagatory work a safe guide for procedure.

And it will be advantageous to determine if possible the replacement value or possibilities of pickerel in maskinonge waters in anticipation of maskinonge depletion.

Reviewing the pickerel situation, the Committee recommends:

(a) That the yellow pickerel or dore should have a game-fish or semi-game-fish rating which would recognize restriction to capture by angling in waters where game-fish interest predominates.

(b) That close season protection should be provided in all waters irrespective of particular game-fish or commercial fishing interest.

(c) That consideration should be given to the adequacy of a smaller number permitted to be taken in one day for game-fishing purposes.

(d) That the significance of the pickerel as a substitutive fish under conditions of depletion of bass or maskinonge or in the event of closure applying to either of these species should be recognized.

(e) That propagation and re-stocking should be rapidly developed with especial reference to those waters in which pickerel are depleted or in which the cultivation of pickerel is desirable in order to provide a substitute game-fish for bass or maskinonge.

(f) That special effort should be given to the investigation of the results of former plantings of pickerel fry in game-fish waters.

THE IMPORTANCE OF LOCAL SITUATIONS

In addition to the participation of various Associations in the representations presented by the Ontario Federation of Anglers and applying in a broad way to the Province in general, the Committee has had at its disposal over one hundred communications representing local centres. They include, incidentally or by special reference and study on the part of local bodies, observations and suggestions concerning the following sections of the Province:

Eastern counties and the St. Lawrence river.

The Rideau system, associated and inland lakes of the related counties.

The Trent waterway, connecting and contributing waters, including lakes of the related counties.

Prince Edward County and the Bay of Quinte.

The southwestern peninsula, including both Great Lake and inland waters.

Georgian bay and the North channel.

Muskoka lakes, Lake of Bays and various inland centres in the districts of Muskoka and Parry Sound.

Lake Nipissing and the French river.

Timagami.

Timmins.

Sudbury and district.

Sault Ste. Marie and district.

Port Arthur, Fort William and district.

The Lake of the Woods, north and south sections centering respectively on Kenora and Rainy River.

After a careful study of these communications, the Committee is of the opinion that no useful purpose would be served by the immediate publication of the general body of information, comments and representations as it now stands, the reason being that what is immediately available is in reality only a partial contribution, although a most important one, to a general enquiry which ought to be carried out systematically in all parts of the Province. At the risk, therefore, of some injustice to local bodies, some of whom have been to great pains to analyze the conditions obtaining in their respective districts, the Committee decided to use the local information obtained, in so far as it did not apply to conditions of broader applicability in the Province, simply as a basis for illustrating the importance of local situations in contrast to one another, and therefore the desirability of a thorough technical and economic survey of the Province.

It may be taken for granted that the effectiveness of any governmental arrangement depends upon its suitability for meeting the requirements of various types of local situations. Local situations are of paramount importance. They constitute for every person, directly or indirectly interested, the primary basis of legislative arrangement. There must be in every respect an adjustment of the common authority to the local situation and similarly a general alignment of the needs of the latter to the common authority. These facts or principles are so fundamental and axiomatic that no one would think seriously of questioning them. But, nevertheless, as applied to the game-fish situation in this Province, they are very far from being generally understood or appreciated. If a general regulation (cf. pickerel and lake trout, continuous open season in Georgian bay, pike as game or coarse fish, close and spawning seasons of various species) does not fit a given local situation, the fault is with the regulation.

A fundamental weakness of game-fish regulation under Government auspices is its inability of applying the principle of local self-government. The effects of this condition may be exaggerated even to the point of general ineffectiveness and dissatisfaction when physical or natural conditions are very different in different sections, when the economic requirements are very different, when there is a lack of contact between the Government service and the local authorities, and finally, when the primary authority is so far removed that it makes local adjustment impossible or difficult.

The various representations which have been made to the Committee demonstrate clearly that not simply one but all these conditions obtain to a greater or lesser extent in the Province and that it would be well worth while considering in what ways the needs of local centres could be more adequately met.

As has been pointed out previously, the fact that the various parts of the Province are geologically, climatically, and from the point of view of natural game-fish habitats, diverse, indicates that the practice of framing regulations which would apply without elasticity or modification to all parts of the Province is in many respects basically unsound. On the other hand, in practice a local request or recommendation, for example, that a close season should, on account

of such differences, be varied, which recommendation might on thorough examination be found to be perfectly sound, would under present conditions have to run the gauntlet of the entire administrative machinery through the Province to the Dominion Government, which latter may, like every other primary authority, be more interested in general than in local regulation.

Again, no two sections of the Province are alike in their relation to former conditions as game-fish utilization and more especially to present conditions as regards depletion, game-fishing requirement, summer resident or tourist requirement, accessibility by railway, motor road and many other factors which in general make up the local situation on the economic side. The local incidence of many of these factors considered individually varies in Ontario from nothing to one hundred per cent. Yet if one section of the Province requests additional protection or recognition of certain fishes as game-fishes involving a regulation not applicable to other parts of the Province the request may easily be lost sight of or refused in the interests of general regulations.

Leaving out of account the uncertainty that has come into game-fish control as a result of the lack of public understanding and definition of the respective authorities, it is very plain from the representations received that there exists a very general sentiment to the effect that too much emphasis is being placed upon the centralization of authority and uniformity of regulations, and that too little attention is being given to local requirements, and that a counterbalance is required that will give proper consideration to local interests.

A study of this question seems to indicate that in addition perhaps to seeking better machinery of regulation, better definition of authority, and improved means of contact between the provincial service and local interests, some effort ought to be made at once to ascertain, record and classify the peculiarities which exist locally throughout the Province. The information available from local sources can be used, as indeed it has been used in the preparation of this report, to obtain the combined sentiment of the Province with regard to general regulation. But in a perhaps more important way it could be used as the basis of an economic study of the game-fish possibilities, tourist trade, transportation facilities and other matters in which both the Province as a whole and the local centres are vitally interested, and in respect of which undoubtedly a great deal of local difference would be found to exist.

Elsewhere in this report, reference has been made to the necessity of ascertaining by scientific survey the natural characteristics and potentialities of our waters from the point of view of game-fish production. An economic survey which would primarily involve the significance of local centres from the point of view of facilities and trade, based on game-fish utilization, but would bring together the various components so as to yield a combined picture of the potentialities of the Province, would also be of great value. The Committee recommends that this economic survey should be carried out, using as a basis the material at hand, but extending the investigation so as to cover completely all parts of the Province.

CONCLUSION

In concluding this report, the Committee wishes to make especial reference to the service rendered both to its deliberations and to the cause of game-fish conservation by the sportsmen of Ontario. For many years there have existed in the Province Associations of sportsmen, endeavouring, often under conditions of unusual difficulty, to stimulate local interest in the protection of the game-fish resources. Records show that there has not been lacking in Ontario a succession

of men both in and out of Government service who refused to accept the common platitudes either that the resources were inexhaustible or that they could prosper under inexperienced management, and who foresaw clearly that if improvement were to be effected, it could be done only by vigorous active leadership on the part of the Government, supported and reinforced by intelligent public opinion. Within the last two or three years, the organization of public opinion, in so far as the game-fishes are concerned, has been largely accomplished and public sentiment favourable to conservation greatly augmented. The sportsmen of Ontario and their Associations have been to considerable trouble and expense to bring about improvement of public opinion and to make clear to the Government that what they most desired was an impartial investigation of the facts followed by constructive action. While the Committee in all such cases has been in receipt of various kinds of information, the sportsmen have responded willingly to the request of the Committee that they should state their cases, having in mind the best interests of the Province and of game-fish conservation. Both in the representations that have been made and in the course of the conferences which were held in various parts of the Province, the Committee has been gratified to observe that these gentlemen, while outlining the needs of their respective communities have asked for little more than that the Government should recognize the urgency of the game-fish situation. The Committee on its part, while preserving an independent attitude throughout, has found in these representations not only a great number of valuable suggestions, but also the assurance that they express in the main the desire for progressive and aggressive action.

The Committee further takes the opportunity of expressing its appreciation of the services rendered by Professor W. J. Harkness, who as Secretary contributed in innumerable ways to the compilation of the results and to the activities of the Committee generally.

F. G. MACDIARMID, *Chairman.*

C. N. CANDEE.

B. A. BENSLEY.

25th March, 1930.

SUMMARIZED RECOMMENDATIONS*

1. While it is to be admitted that both the nature of the administrative machinery and various kinds of external and objective factors have bearings of similar importance as regards the game-fish situation, the Committee believes that any discussion of internal organization is more properly a function of the Provincial Government, and therefore reports the following issues as more or less generally suggested by collective public opinion and further as worthy of consideration:

(a) There is a well-defined sentiment in the Province that with the growing importance of the Department of Mines, on the one hand, and the far-reaching importance of game and fisheries, on the other, the Department of Game and Fisheries should be made one of major importance.

(b) There is a widespread conviction that greater recognition should be given to the community of interest existing in various ways as regards forest, game, and game-fish conservation.

*These recommendations are submitted solely for convenience of reference. Not being individually self-explanatory, they should be read in conjunction with the sections of the Report to which they otherwise refer.

(c) There is a very general opinion to the effect that either through administrative organization or by more definite arrangement the establishment of closer public relations on the part of the service would be advantageous.

In view of the fact that the present organization and ramifications of the Government services have been evolved as a result of practical experience, the Committee believes that the matters above mentioned should be favourably considered to the extent consistent with limitations imposed by various service requirements peculiar to the Province.

2. With the object of making the work of the Department of Game and Fisheries better known and appreciated throughout the Province, and further of encouraging and utilizing the efforts of local Associations of sportsmen and of municipalities in the direction of game-fish conservation, a plan of publicity should be adopted, involving either separately or in combination:

(a) Personal visits on the part of senior departmental officers to confer with local Associations and related interests.

(b) Appointment of a special publicity or liaison officer of educational and technical qualification for service in various parts of the Province.

3. The entire conduct of game-fish administration should be consistently maintained on an independent service basis.

4. In view of conditions now existing in the Province, and in anticipation of greatly increased demand on the game-fish side, the hatchery system should be developed rapidly along game-fish lines, emphasis being placed upon new sites and construction appropriate to the various species concerned, including speckled trout, bass, maskinonge and pickerel.

5. Efforts should be especially directed to the provision of outside rearing ponds, spawning ponds, and retaining ponds, which should be developed in order to cover the necessities of rearing young fish to the late fingerling or older stage, semi-controlled natural spawning of bass, and to some extent accommodation of parent fish.

6. Public discussion should be invited on the question as to whether non-native species are to be encouraged in the Province and a definite policy adopted on this issue.

7. In view of current criticisms in Ontario and elsewhere as to the effectiveness or non-effectiveness of fry planting, and the circumstance that there is not as yet available a sufficient body of quantitative facts bearing on the question, it is urged that all planting should be regarded as a problem to be solved by technical investigation, and that in any event the rearing of fish to a late fingerling or older stage will be found to be advantageous for all game-fishes which can successfully be carried through and beyond the fry stage.

8. The importance should be recognized of determining in advance by survey methods the fundamental characteristics of waters in which it is proposed to carry out planting operations.

9. Application of the principle of closure is becoming increasingly urgent in Ontario. Closure to game-fishing of water areas, whether as complete lakes, bays or parts of streams, for stated periods of years, or permanently for the supply of adults or fingerlings needed by the Department for re-stocking, should be very extensively applied, in order that the requirement of time for natural growth and distribution in waters otherwise more or less continuously over-fished may be met.

10. In view of the general opposition which may be expected to result from closure and similar curtailment of personal privilege, it is recommended that

the Provincial Government should give consideration to the advisability of adopting the principle of general closure, with secondary opening of any part or area, as a means of declaring public ownership, reservation and disposition of the game-fish resources.

11. Game-fish sanctuaries should be more extensively established throughout the Province. They should be defined as bodies of water, enclosed or unenclosed, Government-owned or designated, and posted, which are closed permanently to be used, when enclosed, for departmental distribution of adult or young fish, and, when unenclosed, for natural dispersion.

12. While adhering to the principle that Ontario waters should continue to be available for public fishing, adjustment should be made throughout the agricultural portion of the Province, so as to remove popular confusion as regards water rights, and provide as necessary for the adequate protection of the following classes:

(a) Farmers and other landowners who wish to grow fish in waters situated upon or passing through their lands.

(b) Private clubs and municipalities desiring to engage in fish culture, when recognized or specified as being of public benefit.

(c) Groups of landowners willing to protect trout in upper headwaters with public fishing in the lower reaches.

13. In the cases specified under section 12, prosecutions and penalties should be established on a basis of ownership of the fish, private or governmental, as well as upon the common basis of trespass.

14. The use, possession or sale of fish spears of any kind should be prohibited in Ontario.

15. The use, possession or sale of gill nets of any kind, or of netting of the gilling type, should be prohibited, except under authority of a commercial license or special permit issued by the Department.

16. A specific regulation with penalties attached, prohibiting both the taking of fish, and unnecessary destruction of fish, by the use of dynamite or other explosive material, should be included in the fisheries regulations.

17. Angling at night should be prohibited by special regulation.

18. The setting of night lines, and other methods of taking fish, not authorized as "angling," should be prohibited by special regulation rather than by the negative implication that they do not constitute angling as defined in the regulations.

19. The term "coarse," "rough" or "trash" fish should not be used, or if used the species meant should be designated.

20. Removal of species held to be undesirable should not take place without thorough local investigation of the alleged injuries which such species are presumed to bring about.

21. The removal of undesirable species should take place only under Government supervision.

22. The regulations regarding the capture of bait minnows should be made uniform as between nets permitted and nets licensed.

23. Nets for capturing bait minnows, other than special traps of specified form, composition, or size, and hand or landing nets of specified maximum diameter at the mouth, should be restricted to flat dip nets measuring not more than six feet and all others should be prohibited except for Government, educational, or scientific purposes.

Nets of the minnow-seine type, if legalized at all, should be limited to a maximum length of ten feet and a maximum depth of two feet.

24. The prohibition of the transfer of live minnows from one lake or stream to another for re-stocking purposes, except under permit from the Department, and likewise the prohibition of the liberation of unused bait minnows taken from other waters, should be separately set forth in the regulations.

25. The sale of live minnows, except for use in adjacent waters, should be prohibited.

26. The sale or transfer of live carp minnows should be specifically prohibited except where captured and used in the same waters.

27. In view of alleged injuries to game-fish as a result of lowering and raising water levels in the Trent and Rideau canals, the Department should maintain some type of inspection of the waters in question and where injury is reported confer with the Dominion authorities on control measures.

28. In cases where proposed alterations, repairs or constructions on these canal systems threaten to be injurious to the game-fish interest, the Province should assume such expense as may be desirable for purely protective purposes.

29. The Provincial Government should take cognizance of the situation created by the lowering of inland lake and river levels, brought about by the decay or destruction of abandoned timber dams, and where maintenance of former levels is advisable in the interests of game-fishing or transportation facilities for settlers and others, should take steps to place these dams in a good state of repair.

30. The Dominion regulations regarding fishways should be given advertisement through the publications of the Department, but the general policy of enforcing the provisions should be subject to exception in the case of bass, maskinonge and pickerel waters.

31. Fishways should be provided in trout streams where dams are already constructed or proposed to be constructed, when it is found or anticipated after proper investigation by the Department that there is or would likely be hindrance to upstream migration resulting, or likely to result in depletion of the fish supply of the upper waters.

32. A check should be put upon the indiscriminate building of dams or other hindrances to migration without proper consideration of the game-fish interest.

33. In view of the complaints that are made concerning pollution of waters and injury to fish life, and in view of the progress that has been made elsewhere in dealing with this problem, the Provincial Government should adopt an aggressive policy of correcting this condition either on a fishery or public health basis, and should give publicity to the Dominion fishery regulations bearing on the issue.

34. In view of the complaints that are made concerning certain birds alleged to be injurious to game-fish, consideration should be given to the advisability of having American Mergansers destroyed by departmental officers as provided for in the Migratory Birds Convention Act, and to the further investigation of the alleged injuriousness of the Common Kingfisher and the Great Blue Heron.

35. Angling, including trolling from boats of any type while in motion, under sail or mechanical power, should be prohibited.

36. In the interest of better public understanding of the regulations, the Department should issue an informative booklet in which:

(a) The primary source of game-fish and fisheries authority should be defined.

(b) The Dominion regulations should include both general (pollution, fishways, hindrances to passage) and special (sizes, seasons, etc.) regulations applicable to fish or fisheries in Ontario.

(c) The provisions of the Ontario Game and Fisheries Act pertaining to fisheries should be extracted or recodified and printed separately from the provisions covering birds and mammals.

(d) The regulations regarding both game-fish and commercial fish should be included, so that both game-fish and commercial fish interests may be informed as to their respective rights and privileges.

37. Both Dominion and Provincial regulations should be revised from time to time in keeping with current conditions in order that the requirements may be covered and the provisions worded in such a way as to ensure clarity and intention.

38. The importance should be recognized of issuing to visiting tourists and others illustrated literature, bulletins, or folders giving information concerning the game-fish attractions of the Province, tourist routes and centres, regulations, method of procuring licenses, coupled with some information of a conservational nature and a friendly warning that we intend to have our laws obeyed.

39. The opinion generally expressed by sportsmen is that game-fish protection and other matters of conservational advantage will make little progress along lines of establishing public opinion, except under conditions of active Government leadership. In view of the fundamental importance of public school education in this respect, it is urged that the Department of Education should give consideration to the advisability of including some form of conservational instruction in the school curricula, and should give encouragement to essay contests and other means of engaging the interest of the youth.

40. Because of the diversity of natural and economic conditions in the Province, greater attention should be given to the principle of local regulation as opposed to uniformity of regulation for the Province as a whole.

41. For the purpose of increasing the number of species utilizable as game-fishes, certain species, at present pike, lake trout and yellow pickerel, should be given a definite game-fish or semi-game-fish rating. Semi-game-fishes may be described either as individually designated kinds, in accordance with the method of classification of the game-fishes in the Dominion regulations, or as fishes which in purely game-fish waters may receive the same kinds of protection afforded to game-fishes, and in waters generally open to commercial and game-fishing may be locally reserved for game-fishing purposes where game-fish interest may be reasonably held to predominate.

42. Because of the increasing demands of game-fishing and summer resident interest, and the manifest value to local communities of the tourist trade, further reservation of waters for game-fishing purposes should be carried out, more especially along the following lines:

(a) Reduction of commercial licensing in inshore waters, both in the Great Lakes and in inland lakes where game-fish interest, estimated on the basis of the existence of attractive residential sites or facilities, and of large or growing communities of summer residents, may be reasonably held to predominate.

(b) Special consideration of the claims of local Associations on behalf of the non-resident tourist population.

(c) Definition and public announcement of the areas respectively reserved for game-fishing or commercial fishing purposes.

43. The attention of the Provincial Government is invited to the circumstance that the interests of game-fish conservation are in danger of being less subject to effective control, directly or indirectly, through the lack of co-operative agreement as regards regulation of close season and times or conditions of capture as between the Province and the Dominion, and as between either or both and the tier of States bordering on the Great Lakes.

Consideration is urged of the following facts:

(a) Lack of provision of close season for pickerel and lake trout in the Great Lakes, including the very important tourist waters of Georgian bay and the North channel.

(b) The fact that the hatcheries of Ontario are being operated at considerable expense and are being relied upon to make up the deficiency caused by lack of protection of fish during the natural spawning period.

(c) Lack of more direct control and elasticity of regulations as applied to local needs.

(d) Lack of publicity given to important protective regulations not of Provincial origin, especially concerning fishways and water pollution.

(e) The tendency to enlarge rather than to restrict privileges to citizens of the Province and the respective States individually because of privileges presumed or known to be possessed by citizens of other States or of the Province, notwithstanding the obvious injury to the fishes themselves.

44. The number of District Wardens in the northern part of the Province, including the area westward from Nipissing to Kenora and Rainy River, should be increased.

45. The importance of the District Wardens in organizing protective and co-operative conservational opinion in their respective districts should be recognized and this type of service developed as of specific value to the work of the overseers and of general value in establishing improved public relations.

46. The staff of overseers should be considerably increased, with especial reference to waters where complaints of poaching are common, where the physical conformation of the shore is such that it renders detection difficult, and where tourist occupation is in an advanced stage of development.

47. Overseers should be provided with proper equipment so that they can cope with conditions now unduly advantageous to law breakers.

48. Efforts should be made in the near future looking to a remodelling of the present type of organization as regards overseers along the following lines:

(a) The production of a uniformed force of disciplined men with special training and qualification for the work.

(b) Utilization of the younger, active men for field service.

(c) Provision of some arrangement for at least moderate promotion of older experienced men, according to the plan usually followed by police, military and similar organizations.

(d) A general revision upwards of the scale of salaries.

49. In the interests of economy, and because of the enormous areas to be protected in the Province for different purposes, the Provincial Government should consider the advisability and practicability of organizing a general force of field officers for natural resource and policing service, the force being sectionally assigned for major work as regards particular branches of the Government service, but having minor, accessory or general supervising duties.

50. In view of the difficulties to be overcome by overseers and other officers in obtaining prosecution of offenders, for various reasons incident to the service,

investigation should be made along the following lines to ascertain if these difficulties can be lessened:

(a) More complete and simplified definition of the list of offences on the basis of which the officer is expected to make arrests, including all general regulations affecting his service.

(b) Some legal definition or instruction as to the class of evidence upon which the officer may reasonably expect to rely in making prosecution.

(c) Re-consideration of the applicability of the regulations designated as sections 58, subsection 5, and section 65, subsection 1 of the Provincial Game and Fisheries Act (R.S.O. 1927, chap. 318, as amended by 1928, chap. 52), which make it obligatory upon the officer to effect general seizure of articles "found in the possession of" any person deemed to have committed an offence.

(d) Better recognition of the serious nature of game law infractions when under prosecution.

51. There should be friendly co-operation between field officers and the public so that an atmosphere of suspicion may be avoided, and in order that public opinion may be developed in the direction of confirming authorized privileges and of detecting or warning offenders.

52. Efforts should be made to do away with the licensing of unqualified guides and the signification thereby implied of Government approval, which is misleading and deceptive to prospective employers. A constructive policy should be gradually elaborated so that the guides of Ontario will constitute a select body of men, known by local reference or otherwise to be of good character, proficient in handling boats, and acquainted with the local waters.

53. The formation of Guides' Associations should be actively encouraged because of the advantages which may be expected to result from local comparison of qualifications and the elimination of undesirables.

54. The value of local fish, game, forest, conservational or trades Associations should be recognized for the assistance they can render locally to the protective service through the overseers and other officers.

55. Local Associations should not only be encouraged to formulate and submit their constitutions as an assurance both of their intentions and the obligations imposed upon their members, but should receive active assistance of the nature of information as to what the Government is trying to do along service lines, information as to available literature and public lectures on conservational subjects, and such other assistance as will enable them to maintain and develop local interest. They should also be invited to submit recommendations concerning matters of local advantage.

56. Special attention should be given to perfecting the mechanism of issue, and information concerning the method of procuring non-resident licenses, along the following lines:—

(a) Provision of service at Customs ports.

(b) Re-consideration of the advisability of permitting licenses to be issued by tradesmen.

(c) Re-consideration of the former practice of having licenses issued by officers.

(d) Posting of notices regarding non-resident licenses in all places where licenses are issued and in all hotels, camps, tourist trade offices and other convenient places frequented by non-resident visitors.

57. An agreement should be sought as between the Province of Ontario on the one hand and the Provinces of Quebec and Manitoba on the other by

which, in the case of each province, the non-resident angling license would not be required of citizens of the immediately adjacent Province for fishing in waters traversed by the interprovincial boundary.

58. A resident rod license, with minimum age limit at which applied, should be established in Ontario when the need of additional revenue to be applied exclusively to game-fish protection, propagation and similar service shall have been demonstrated.

59. The organization of the scientific technical service of the Department of Game and Fisheries should be greatly extended.

60. In view of the increasing importance of scientific research as applied to the solution of economic fisheries problems, and the existence of several agencies capable of assisting in this direction, including therewith the Ontario Fisheries Research Laboratory of the Provincial University, various scientific Laboratories of the Universities of the Province, the Ontario Research Foundation, the Biological Board of Canada, and the Research Council of Canada, it is recommended that conferences be arranged in the near future looking to the formulation of a plan by which these various agencies may be brought into helpful co-operation as regard problems pertaining to this Province.

61. Because of the greatly increased and rapidly expanding requirements of game-fish service, more especially in relation to present and prospective volume of tourist trade, there should be a very extensive revision upwards of the scale of expenditure as applied to the work of those branches of the Department of Game and Fisheries immediately concerned. Serious consideration should also be given to present and prospective sources of revenue necessary to the purpose.

62. The limitations of the existing hatcheries of the Province in respect of the hatching and rearing of trout should be recognized, and efforts made to bring about improvement along the following lines:—

(a) Provision of at least two new hatchery sites mainly serving the lower part of the Province.

(b) Selection of these sites on the basis of physical and chemical suitability of the water sufficiency of volume and flow for present and future requirements, absolute control of spring sources, provision of sufficient land for future extensions, and proper gradients.

(c) Liberal provision for rearing ponds, and where necessary for retaining ponds.

(d) Investigation of the practicability of establishing and operating similar hatcheries with rearing ponds attached in the more northerly part of the Province, more especially with reference to North Bay, Sault Ste. Marie and Port Arthur or Fort William as local centres.

63. In view of prospective difficulties, the provision of satisfactory sources of artificial and natural food supply for rearing trout and other game-fishes should be recognized as a problem demanding special investigation.

64. A definite plan should be formulated looking to the re-establishment of speckled trout in the streams of the older settled, southern portion of the Province.

65. In obtaining stocks of eggs from which trout are to be hatched for re-stocking purposes, preference should be given to local supply for local planting.

66. Planting of brown and "rainbow" trout should continue to be held more or less in abeyance until information is fully available as to re-establishment of native species, the effects of these varieties upon native species, and the behaviour of the stocks, especially of "rainbow" trout already planted. An exception

should be made of the waters of the Lake Superior region where "rainbows" are already established and generally appreciated.

67. Efforts should be made to develop more rapidly the service arrangements for propagation and re-stocking as applied to small-mouthed black bass, and to some extent to large-mouthed bass along the following lines:—

(a) Renovation of the Mount Pleasant bass ponds.

(b) Construction of at least two new sets of ponds for small-mouthed bass, and one set of ponds for large-mouthed bass in the lower part of the Province.

(c) Selection of sites, either separately or in combination with trout hatchery sites, on the basis of requirements for the most part, as previously stated for trout.

(d) Separate maintenance and operation of ponds for bass as opposed to trout.

(e) Production of late fingerlings under proper conditions of pond space, and food.

(f) Such development of retaining ponds as will ensure moderate supplies of parent fish.

(g) Investigation of the practicability of constructing and operating artificial bass ponds to serve the north shore of Lake Huron and other regions westward, especially in the districts of Kenora and Rainy River.

(h) Reservation of a large number of Government owned or controlled sanctuaries for the supply of young of adult fish for re-stocking purposes.

(i) Immediate and aggressive application of the principle of local closure in order to provide opportunity for growth in waters otherwise over-fished.

(j) Special consideration of ways and means of successfully re-stocking the older continuously fished waters, including Lake Simcoe, Georgian bay, Muskoka lakes, parts of the Trent and Rideau systems and geographically related or easily accessible waters of the southern Lake Ontario or St. Lawrence section.

68. In view of protests and representations that have been made on behalf of certain sections of the Province in respect of June and October fishing for black bass, and the importance of adjusting this difficulty, it is recommended that the open season should be considered on the basis of allowing fishing from July 1st to October 14th, or 106 days, with such later reduction as may be necessary.

The reasons advanced in favour of this recommendation are stated in Sections 72-74 which must be read in conjunction with Sections 75-79 and with the Dominion regulation permitting June fishing for yellow pickerel.

69. The total number of days during which bass fishing may be permitted is at the present time a relatively more important issue than that implied in merely covering by means of a spring close season the natural requirements of spawning.

70. The sole significance of the date of fall closing for bass consists in the advantage to be expected from controlling the amount of fishing.

71. The economic importance and local convenience of having at least one species of game-fish or substitutive fish—trout, maskinonge, pickerel, or pike—available for early summer fishing, should be recognized in contrast to the loss and inconvenience resulting from the complete prohibition of game-fishing in most waters of Ontario to a date as far along as July 1st.

72. In view of protests and representations that have been made on behalf of certain sections of the Province in respect of June and October fishing for maskinonge, and the importance of adjusting this difficulty, it is recommended that the open season should be considered on the basis of allowing fishing from June 16th to October 14th, or 120 days (cf. Sections 71-74 and Sections 76-79).

73. The question of the number of days during which maskinonge fishing may be permitted has little or no reference to protection during the spawning period, provided the open season does not begin, approximately or on the average, earlier than the middle of June.

74. The significance of the date of fall closing consists in the advantage to be expected from controlling the total amount of fishing in contrast to the attractiveness and value of October fishing.

75. Even with a restriction of capture to two maskinonge per day it is probable that in the not distant future, reduction of the number of days of fishing will have to be effected, either through shortening in spring or fall, or closing through a part of the less desirable summer fishing period.

76. Closure of waters formerly containing maskinonge in abundance and now depleted should be insisted upon if re-stocking is undertaken, whether by local request or otherwise.

77. Artificial propagation of maskinonge should be rapidly developed in the southern part of the Province with the especial object of serving the waters of the Trent system and providing where necessary for other waters in which maskinonge were formerly abundant or are now locally desired.

78. In order to cover the requirements of certain waters in which pike are important from the game-fishing or tourist standpoint, pike should have a game-fish or semi-game-fish rating with adequate provision of legal restrictions as to close season, number and minimum size. These restrictions should either be locally applied, or generally applied and locally removed, in order to provide for free capture or for Government removal of pike in the interest of more favoured game-fishes.

79. Lake trout should have a game-fish or semi-game-fish rating which would recognize restriction of capture to angling in waters where game-fish interest predominates, with provision for close season protection whether on the basis of commercial fishing or of angling, in addition to present restrictions.

80. Special attention should be given to the re-stocking requirements of certain inland waters in which lake trout are relied upon for summer game-fishing.

81. The commercial fishing line extending along the main or northwest shore of Georgian bay should be re-drawn some five miles off shore with the object of establishing a game-fishing area adequate in extent to the importance of summer resident populations on the main shore and islands, of affording greater protection to spawning fish in a part of the Great Lakes pre-eminently Canadian, and of restricting inshore net fishing and disposal of fish to operations conducted under Government supervision.

82. Yellow pickerel should have a game-fish or semi-game-fish rating which would recognize restriction of capture to angling in waters where game-fish interest predominates, with provision for complete close season protection whether on the basis of commercial fishing or angling, and with possible further reduction in maximum number per day in addition to the present restrictions.

83. Artificial propagation and re-stocking as applied to pickerel for game-fishing purposes should be more rapidly developed along the following lines:—

(a) Re-stocking or supplying waters in which bass or maskinonge have become depleted.

(b) Special attention to waters having a large summer resident population.

(c) Investigation of methods used in planting and probable results of former plantings in exclusively game-fish waters.

84. As a counterbalance to the centralization of authority in the tendency to prescribe regulations in the interests of uniformity rather than of local applicability, greater attention should be given to the requirements of local situations, especially along the following lines:—

(a) Assistance in various ways to local Associations.

(b) Technical investigation of local game-fishing possibilities, including climatic and geographical differences worthy of legislative differentiation.

(c) Economic survey of present and prospective relations of local centres to industrial development, transportation and tourist trade as applied to the extent and differences of game-fish requirement and to local regulation.

F. G. MACDIARMID, *Chairman*.

C. N. CANDEE.

B. A. BENSLEY.

March 25th, 1930.

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